

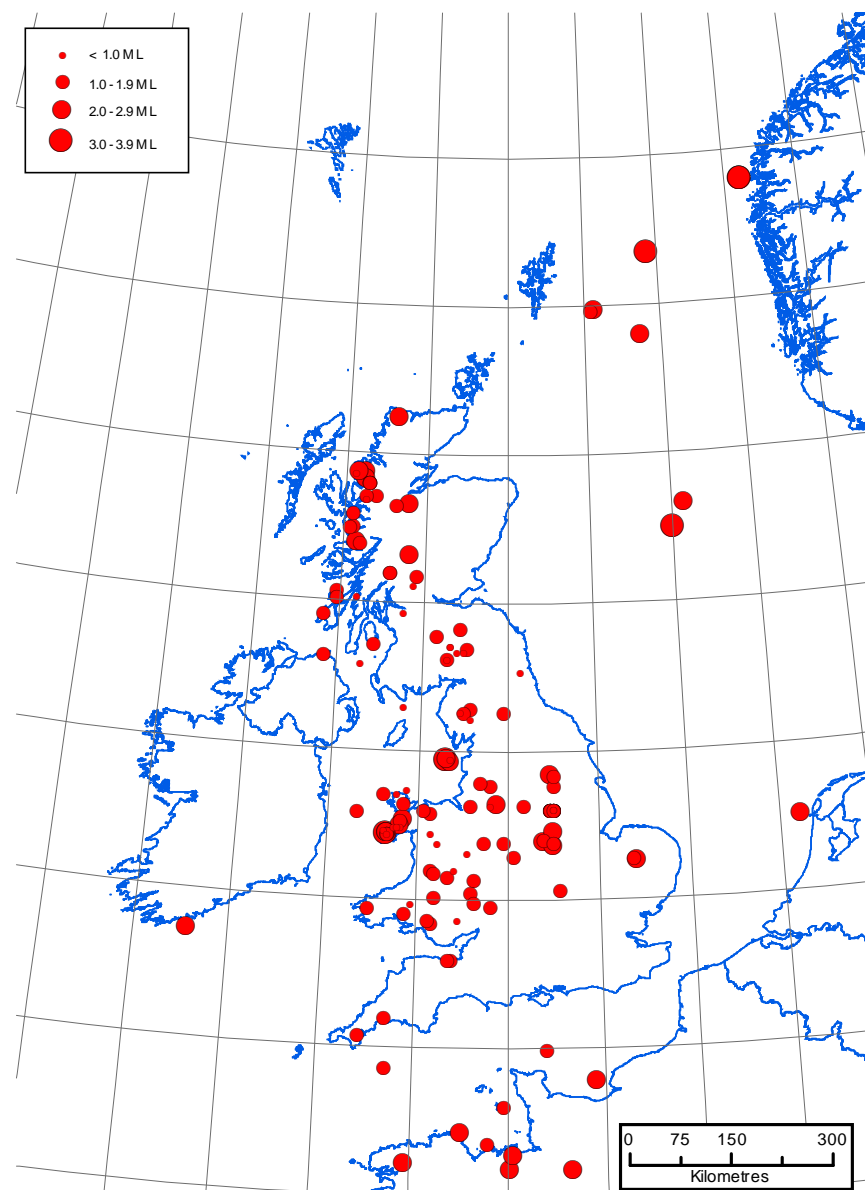
BRITISH GEOLOGICAL SURVEY

REPORT OR/14/062

Bulletin of British Earthquakes 2013

D D Galloway (Editor)

Contributors: J Bukits and G D Ford



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Bibliographical reference

GALLOWAY, D D 2014. Bulletin of British Earthquakes 2013. *British Geological Survey Internal Report, OR/14/062*

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Keyworth, Nottingham NG12 5GG

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☎ 01392-445271 Fax 01392-445371

Geological Survey of Northern Ireland, 20 College Gardens, Belfast BT9 6BS

☎ 028-9066 6595 Fax 028-9066 2835

Maclea Building, Crowmarsh Gifford, Wallingford, Oxfordshire OX10 8BB

☎ 01491-838800 Fax 01491-692345

Parent Body

Natural Environment Research Council, Polaris House, North Star Avenue, Swindon, Wiltshire SN2 1EU

☎ 01793-411500 Fax 01793-411501
www.nerc.ac.uk

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Table 1. Catalogue of events in chronological order: 2013.

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Table 3. Geographic coordinates and instrumentation of BGS seismograph stations.

Table 4. Depth / crustal velocity models used in earthquake locations.

1 Introduction

The British Geological Survey's (BGS) Seismic Monitoring and Information Service operate a nationwide network of seismograph stations in the United Kingdom (UK). Earthquakes in the UK and coastal waters are detected within limits dependent on the distribution of seismograph stations. Location accuracy is improved in offshore areas through data exchange with neighbouring countries. This bulletin contains locations, magnitudes and phase data for all earthquakes detected and located by the BGS during 2013, listed in Tables 1 and 2. Maps showing seismic activity in 2013 (Figure 1), and the larger magnitude events since 1979 ($ML > 2.5$) and since 1970 ($ML > 3.5$) are also included. The bulletin covers all of the UK land mass and its coastal waters including the North Sea ($11^{\circ}W$ to $6^{\circ}E$ and $47^{\circ}N$ to $65^{\circ}N$).

All events believed to be of true tectonic origin are included. Coalfield events are also included. Acoustic disturbances, such as sonic booms from supersonic aircraft, are included when they are felt. The airborne waves are readily identified by their slow travel time across an array or by their signature on a microphone, but they are frequently mistaken as small earthquakes by the public. They are indicated by 'SONIC' in both the locality and comments column of Table 1.

Significant non-natural events, such as explosions, which received media attention or were greater than magnitude 2.5 ML or felt by local residents, are also included in Table 1. Smaller events that are known, or suspected to be of explosive origin are excluded from the bulletin where possible. These include explosions due to quarrying, mining, weapon testing or disposal, naval exercises, geophysical prospecting and civil engineering. Unfortunately, identification by record character, location and time of occurrence is not always conclusive and some man-made events may be included in the bulletin or, more rarely, a small natural event may have been excluded.

2 The BGS UK Seismograph Network

The UK seismograph network consists of just over 100 stations with broadband, short period and/or strong motion accelerometers. Some 39 sites are equipped with broadband seismometers and 29 have strong motion accelerometers, 22 of which are co-located with broadband sensors. The remaining sites are equipped with short period seismometers. Data from nearly all stations are transferred in near real-time to the BGS offices in Edinburgh for automatic processing, analysis and archival. Seismic events are detected using automatic processing algorithms, but can also be extracted manually from our archive of continuous data, then analysed to determine event types, locations and magnitudes. Operational BGS seismograph stations are shown in Figure 2.

The detection capabilities of a network depend upon station distribution, instrument sensitivity and background noise levels. Figure 2 also shows the magnitude detection thresholds for the seismograph stations operational in December 2013. The contours illustrate the lower threshold magnitude for an earthquake to significantly exceed 4 nanometres of noise (average) at 10 Hz on at least four seismographs. These detection levels hold true only if data from all stations are continuously monitored. Smaller events may go undetected unless they are felt and reported to BGS by local inhabitants, in which case detection can be strongly dependent on the population density.

The whole of the UK is covered by the seismograph network for approximately magnitude 1.5 ML, and above, at times of average ambient noise levels. Noise sources such as wind, ocean waves and traffic vary considerably with time (typically 0.5 to 15 nanometres, at 10 Hz) causing the magnitude thresholds to increase or decrease. In conditions of high noise, 0.8 ML should be added to the contour values, causing the threshold to rise to about 2.3 ML. Normally, however, an earthquake of this size would be felt, if not detected, in the areas of poorer instrumental coverage. The bulletin can, therefore, be assumed to be complete for all earthquakes of magnitude 2.3 ML and above.

Given the variability in the earthquake detection threshold, as governed by ambient noise conditions and the geometry of the observing network, the bulletin is biased towards certain localities. Figure 3 shows only earthquakes with magnitude 2.5 ML or greater, in the period 1979 to 2013. The data set is considered complete for these magnitudes in all localities onshore. Seismicity for the period 1970 to 2013 is shown in Figure 4 with a threshold magnitude of 3.5 ML. This is the period covered by BGS instrumentation that, in the early years, only consisted of the network around Edinburgh (LOWNET) and Eskdalemuir (ESK) and a station near Kyle of Lochalsh (KYL). The data set is likely to be complete for such magnitudes.

3 Earthquake Parameters and Their Errors

HYPOCENTRE LOCATION

By accurately timing the signal onsets at a minimum of three stations, a location can be found for an earthquake that satisfies the observed pattern of arrivals. Instrumental locations in the bulletin were obtained using the computer program HYPOCENTER (Lienert and Havskov 1995) that iteratively adjusts a trial hypocentre (latitude, longitude, depth, and origin time) until the observed and computed arrival times coincide closely.

The accuracy of locations is dependent on distances from the closest stations, the distribution of the stations around the epicentre, the resolution to which signal onsets can be timed from the records, and the accuracy with which the seismic wave velocities through the Earth are known.

The accurate determination of earthquake depth presents a more difficult problem, mainly because phase arrival patterns at the seismographs can still be satisfied for a large range of depths merely by adjusting the origin time to suit. Depth is usually only well constrained when there is a station very close to the epicentre.

The best depth determinations are obtained when an earthquake or earthquake series occurs almost beneath a network. For events at larger distances the depth errors can be many kilometres.

MAGNITUDE

All earthquakes in the bulletin have been assigned a local magnitude (ML) as defined by Richter (1935):

$$ML = \log_{10} (A / A_0)$$

Where A is the maximum deflection (centre to peak in mm) registered on a Wood-Anderson seismograph and A_0 is that for a 'standard' magnitude zero earthquake at the same distance. The A_0 term is thus a distance correction factor, tabulated by Richter to 200 km, and later adjusted to include up to 600 km. Although Richter intended his method to be an approximate quantification of earthquake size and his attenuation term, A_0 , strictly only applies to California, the formula is still used worldwide today. The ML magnitudes in this bulletin have been

calculated according to Richter's formula after converting the output of the BGS instruments to an equivalent Wood-Anderson deflection. Ideally, the measurements are made on two horizontal instruments and averaged but, if this is not possible, the mean of the magnitudes from a number of verticals are used. Ground motion registered at a seismograph varies with site conditions, distance and direction from the earthquake, and the nature of the ray path. Consequently, it is important to take the mean from a good distribution of stations. The resulting errors on magnitudes quoted in the bulletin will normally be less than 0.4 ML.

INTENSITY

Intensity is a measure of the effect of the shaking produced by the earthquake on people, structures and objects. It decreases with distance from a maximum value (I_{\max}) usually found close to the epicentre. The maximum felt intensity is quoted, where known, with reference to the European Macroseismic Scale (EMS), (Grünthal, 1993).

4 Summary of 2013 Seismicity

There were 158 earthquakes located by the BGS seismic monitoring network during the year, with 36 having magnitudes of 2.0 ML or greater and seven having magnitudes of 3.0 ML or greater. Nineteen events with a magnitude of 2.0 ML or greater were reported felt, together with a further 30 smaller ones, bringing the total to 49 felt earthquakes in 2013.

The largest offshore earthquake of the year occurred on the Norwegian Coast on 22 March, with a magnitude of 3.7 ML. It was located approximately 340 km ENE of Lerwick, Shetland Islands. A further nine events occurred in the North Sea and surrounding waters during the year with magnitudes ranging between 1.6 and 3.5 ML. The BGS received no felt reports for any of these events.

The largest 'onshore' earthquake, with a magnitude of 3.8 ML, occurred on 29 May at 03:16 UTC and located approximately 2 km off the northern coast of the Llyn Peninsula, Gwynedd, approximately 21 km WSW of the magnitude 5.4 ML Llyn earthquake that occurred on 19 July 1984, the biggest ever recorded onshore in the UK. The estimated area over which an earthquake with a magnitude of 3.8 ML, and depth of 10 km, would be felt (at intensity 2 EMS) was calculated to be a distance of up to 150 km from the epicentre. Analysis of the results from an automatic online questionnaire survey agrees with this. Over 480 reports were received, the majority of which came from within a 50 km radius of the epicentre, from Abersoch, Caernarfon, Bangor, Holyhead and their surrounding hamlets. A little further afield, reports were received from Conwy and Rhyl areas (75-100 km to the northeast of the epicentre), whilst a scattering of reports were received from near Cardigan and Fishguard (85-100 km to the south), from Liverpool, Southport, Blackpool and Oldham (100-140 km to the northeast), from the Isle of Man (150 km to the north), from near Newry, Northern Ireland (170 km to the northwest) and from towns down the east coast of Ireland from Dublin to Gorey, Co. Wexford (110-120 km to the west). Most people described having been awoken from their sleep by the moderate shaking strength of the earthquake, which had a trembling effect. The sound strength was also described as moderate. Reports received described "windows and crockery rattled", "the bed was shaking, too scared to look at anything else", "loud rumbling sound woke me, then we noticed sound of mirror rattling on bedside cabinet", "gradually grew louder like the classic underground train passing sensation" and "woke the household and many neighbours". Three aftershocks were recorded on 29, 30 and 31 May, with magnitudes of 1.7, 0.8 and 1.4 ML respectively, all of which were reported as having been felt by a few residents in Bryncroes and Aberdaron, Gwynedd.

A further seven earthquakes occurred in and around the Lleyn Peninsula during the year. Three of them occurred on 26 June, at 22:28:01s, 22:28:29s and 22:30 UTC with magnitudes of 2.7, 2.4 and 1.2 ML, respectively. The first two of these events, around 28 seconds apart, were felt throughout north Gwynedd, in Pwllheli, Caernarfon, Bangor, Menai Bridge, Blaenau Ffestiniog, Bodorgan and Holyhead and the third was felt by a single resident in Bryncroes, Gwynedd. The other four events occurred on 22 March (magnitude 2.2 ML, not reported felt), on 31 March (magnitude 0.5 ML, not reported felt), on 1 July (magnitude 0.6 ML, reported felt by a single resident in Aberdaron, Gwynedd) and 6 December (magnitude 0.8 ML, not reported felt).

On 18 January, at 05:20 UTC, a magnitude 2.9 ML earthquake occurred near Loughborough, Leicestershire, at a depth of 14 km. The BGS received several reports from residents in the Loughborough and surrounding areas which described, “a rumble and a loud bang”, “bed rattled and the books fell off the shelf”, “sounded like a train or lorry crashing into the house” and “the windows vibrated and rattled”. Data from some 240 questionnaires, collected online, were used to determine how widely the earthquake was felt. Of these 240 reports, the majority came from an area within a 25 km radius of the epicentre, namely from the towns of Loughborough, Derby, Leicester and Nottingham. Several other reports were received from beyond this area with the furthest afield being from near Buxton (60 km to the NNW), from near Warwick (55 km to the southeast) and from Corby (50 km to the SSE). The felt area was elongated in a NNW-SSE direction, with the long axis being about 120 km and the short axis being about 65 km. A further three events were detected in the same region during the following weeks, one on 21 January (magnitude 1.4 ML) and two on 4 February (magnitudes 1.6 ML and 2.4 ML). The 21 January event and the larger event on 4 February were both felt by a few residents in the Loughborough area. These four events locate approximately 20 km WSW of the magnitude 4.1 ML Melton Mowbray earthquake, which occurred on 28 October 2001 and was felt throughout Leicestershire, Lincolnshire, Warwickshire, Yorkshire, Shropshire and Nottinghamshire with a maximum intensity of 5 EMS.

An earthquake with a magnitude of 2.4 ML occurred on 31 January, near Laig, Highland. A single report was received for this event, from a resident in Eriboll, describing “felt like a distant rumble with a faint sound”, indicating an intensity of 2 EMS.

On 7 February, at 22:41 UTC, an earthquake, with a magnitude of 2.3 ML, was detected in the Caernarfon Bay, Gwynedd area. Data from over 200 questionnaires, collected online, were used to determine the felt area. The majority of the reports came from populated areas up to 30 km northeast of the epicentre, particularly from the towns of Caernarfon and Bangor and their surrounding hamlets. Further afield, several reports were received from the Isle of Anglesey to the north, from the Lleyn Peninsula to the south, from Blaenau Ffestiniog to the east and from Porthmadog to the southeast. Reports described “just heard loud rumbling”, “at first I thought it was thunder”, “roar didn’t last very long but it was loud” and “shaking came from underneath my feet”. Three minutes later (at 22:44 UTC) another event, with a magnitude of 1.9 ML, occurred in the same region and was felt over the same general area. Both these events were assigned an intensity of 3 EMS.

A magnitude 2.5 ML earthquake occurred on 27 February, with a location near Cotgrave, Nottinghamshire. The BGS received reports from residents in Nottingham, West Bridgford, Long Eaton, Ruddington, Ravenshead, Keyworth, Beeston, Cropwell Bishop and Besthorpe (Nottinghamshire), from Loughborough, Queniborough, Quorn, Thorpe Satchville, Sileby, Markfield, Mountsorrel, Shepshed and Ashby Folville (Leicestershire) and from Derby (Derbyshire) that typically described “a roaring noise, followed by the house shaking and the windows rattling”, indicating an intensity of at least 3 EMS. An aftershock, with a magnitude of 1.3 ML, was recorded the following day. These events are located approximately 18 km southwest of the magnitude 5.3 ML Derby earthquake which occurred on 11 February 1957 and caused widespread damage to chimneys and roofs in the Derby, Nottingham and Loughborough areas and was felt over the whole of the English Midlands with a maximum intensity of 6 EMS.

Four earthquakes occurred near Gairloch, Highland during the year. They occurred on 24 March (magnitude 2.0 ML), on 15 May (magnitude 2.8 ML) and on 16 July at 04:04 UTC and 06:35 UTC (magnitudes 2.8 ML and 0.7 ML, respectively). All four were reported felt. The magnitude 2.8 ML events and the magnitude 2.0 ML event were reported felt by several residents in Gairloch and Poolewe and their surrounding hamlets, with intensities of 3 EMS. The magnitude 0.7 ML event was felt by residents in Gairloch only. Reports described “a strong reverberation through the floor of the house”, “long subsonic rumble lasting a few seconds”, “the wooden floor shook beneath my feet”, “the glasses, jars, crockery on the shelves all rattled” and “my dog rushed to the door, quite perturbed”.

An earthquake with a magnitude of 2.9 ML, occurred on 18 May, with a location approximately 4 km northeast of Acharacle, Highland. Data from some 70 questionnaires, collected online, were used to determine how widely the earthquake was felt. The majority of these reports were from Acharacle and Strontian and their surrounding villages and hamlets, up to 15 km to the north and northwest of the epicentre. A cluster of reports were also received from the Kilchoan area (25 km to the WSW) and some single reports were received from Glenfinnan (20 km to the northeast) and from the Island of Lismore (30 km to the SSW). Reports described “large, deep, very, very loud explosive bang”, “we thought it was an aeroplane crashing, it was stronger than thunder”, “floor trembled and we felt the vibration through the sofa on which we were sitting”, “started with a loud crack followed by rumbling” and “thought it was a military jet passing over”, indicating an intensity of at least 3 EMS. This event locates approximately 6 km southeast of the magnitude 3.5 ML Glenuig, Highland earthquake on 23 January 2011 and approximately 12 km WSW of the magnitude 3.5 ML Glenfinnan, Highland earthquake on 10 October 2008, which were both felt in the epicentral area with intensities of at least 4 EMS.

On 25 August (09:58 UTC), an earthquake with a magnitude of 3.3 ML, occurred in the Irish Sea, approximately 25 km WNW of Fleetwood, Lancashire. The felt area of this event was derived from over 60 reports received from an online questionnaire survey. Almost all the reports came from within a distance of up to 40 km from the epicentre, namely from the coastal towns of Fleetwood, Blackpool, Poulton-Le-Fylde and Thornton-Cleveleys (Lancashire) and from Barrow-in-Furness (Cumbria). Further single reports were received from the Isle of Man (80 km to the northwest), from Anglesey (80 km to the southwest) and from near Liverpool (50 km to the SSE). Reports described “sat at the computer and the desk moved”, “the sofa shook and keys were swinging in the door”, “felt a vibration through my chair” and “a pair of heavy wood and glass doors rattled”, indicating an intensity of at least 3 EMS. This event was preceded, on the same day, by a magnitude 2.5 ML event at 05:37 UTC and a magnitude 0.9 ML event at 07:13 UTC and followed a week later (on 31 August) by a magnitude 2.6 ML event. Both the magnitude 2.5 ML event and the magnitude 2.6 ML event were felt, in Fleetwood, Blackpool and Thornton-Cleveleys with intensities of at least 3 EMS. Historically, the largest event to have occurred in this area was the magnitude 5.0 ML Irish Sea earthquake on 17 March 1843, which was felt throughout most of Northern England, in Southern Scotland, in North Wales and along the east coast of Ireland from Belfast to Dublin. The only damage reported was from Castletown in the Isle of Man, where ceilings were damaged. It was quite strongly felt in Lancashire and along the east coast of Cumbria; there are reports of objects falling, furniture moving, considerable alarm, but no damage. It was also felt on board ships in the Irish Sea.

An earthquake with a magnitude of 2.7 ML occurred on 27 August, with a location in Glen Lyon, Perth and Kinross, approximately 20 km north of Killin. The BGS received several reports from residents in Glenlyon, Bridge of Balgie, Dall, Camghouran, Lawers and Inverar, which described “a loud bang and a rumbling noise”, “we felt the house shaking” and “we all heard the windows rattling quite loudly”, indicating an intensity of at least 3 EMS. This is the largest event in the region since the magnitude 2.7 ML Killin earthquake in January 2005, some 17 km to the SSW, which was felt throughout the region with a maximum intensity of 4 EMS.

On 4 October, an earthquake with a magnitude of 2.4 ML occurred close to the village of Drumnadrochit, Highland. It was felt by many residents in Drumnadrochit, Dores, Westhill, Errogie, Brinmore, Farr, Scaniport, Culduthel, Torness and Inverfarigaig. Reports received described “a loud rumble for a few seconds”, “sounded like a really strong gust of wind”, “was like something heavy falling on the ceiling or a gas bottle exploding” and “it was best described by the whole family as being like an explosion”. This is an area which has experienced a number of earthquakes in the historical past. In particular between 1768 and 1901 when a number of earthquakes occurred near Inverness, with magnitudes between 3.1 and 5.1 ML. The magnitude 5.1 event, on 13 August 1816, was the largest and severest of the known Inverness earthquakes. It caused considerable damage in Inverness, and could have caused many injuries but for the time of day, when the streets were empty. The epicentre was probably southwest of Inverness itself. The felt area covers almost all of Scotland; but no damage was reported from anywhere other than Inverness.

A magnitude 2.3 ML earthquake occurred on 4 December, with an epicentre in the Celtic Sea, approximately 60 km SSW of Cork, Ireland and 275 km northwest of St Ives, Cornwall. The BGS received a few reports from residents in Timoleague, Courtmacsherry and Clonakilty, Co. Cork, Ireland describing, “we were outside in the farmyard when we heard a loud noise and the shed creaked” and “all the windows shook”. An intensity of 3 EMS was assigned to this event. This is an area that has experienced little seismicity in both the historical and instrumental periods, with only one event located, since 1970, within a 100 km radius of this event.

The coalfield areas of Nottinghamshire and North and South Yorkshire continued to experience shallow earthquake activity that is believed to be mining induced. The largest coalfield event, with a magnitude of 2.1 ML and a depth of 1.4 km, occurred near Hensall, North Yorkshire on 19 February. The BGS received reports from several residents in Hensall who described “all the doors and windows rattled and the ceiling creaked”, “we thought that it was a heavy lorry crashing into the side of our house” and “it felt like a large explosion from underground”, indicating an intensity of at least 3 EMS. In South Yorkshire, two coalfield events on 26 June and 26 September, with magnitudes of 1.9 ML and 1.7 ML, respectively, occurred near Doncaster. The magnitude 1.9 ML event was felt (intensity 2 EMS) by a single resident in Fosterhouses who described “a slight tremor”. In Nottinghamshire, some, eighteen events, with magnitudes between 0.9 and 1.8 ML, were recorded in the New Ollerton area, during the year. The BGS received reports, for nine of these events, via residents in New Ollerton, typically describing “the sofa started shaking”, “we experienced a definite side to side motion”, “the house started to shake” and “we heard a faint rumbling”.

Acknowledgements

We are indebted to the States of Jersey Meteorological Office, the Universities of East Anglia and Leeds, and many individuals who assisted with station operation.

The work was supported in part by:

British Energy (as part of EDF Energy)
Department of Communities and Local Government
Office for Nuclear Regulation (An agency of HSE)
Horizon Nuclear Power Ltd
Jersey Water
Magnox North
Magnox South
Natural Environment Research Council
Scottish & Southern Energy plc
Scottish Power
Scottish Water
Sellafield Ltd

Interchange of data with UK and European agencies, has contributed to the accuracy of location of some of these events and to the determination of their magnitudes. They include:

Atomic Weapons Establishment (Blacknest, UK)
Centre Seismologique Euro-Mediterranean (Bruyères-le-Châtel, France)
Dublin Institute for Advanced Studies (Dublin, Ireland)
GEUS (Geological Survey of Denmark and Greenland)
Institute de Physique du Globe (Paris, France)
Koninklijk Nederlands Meteorologisch Instituut (Ae de Bilt, Netherlands)
Laboratoire de Detection et de Geophysique (Bruyères-le-Châtel, France)
NORSAR (Oslo, Norway)
University of Bergen (Bergen, Norway)
University of Keele (Keele, UK)

This report is published with the approval of the Director of the British Geological Survey (NERC).

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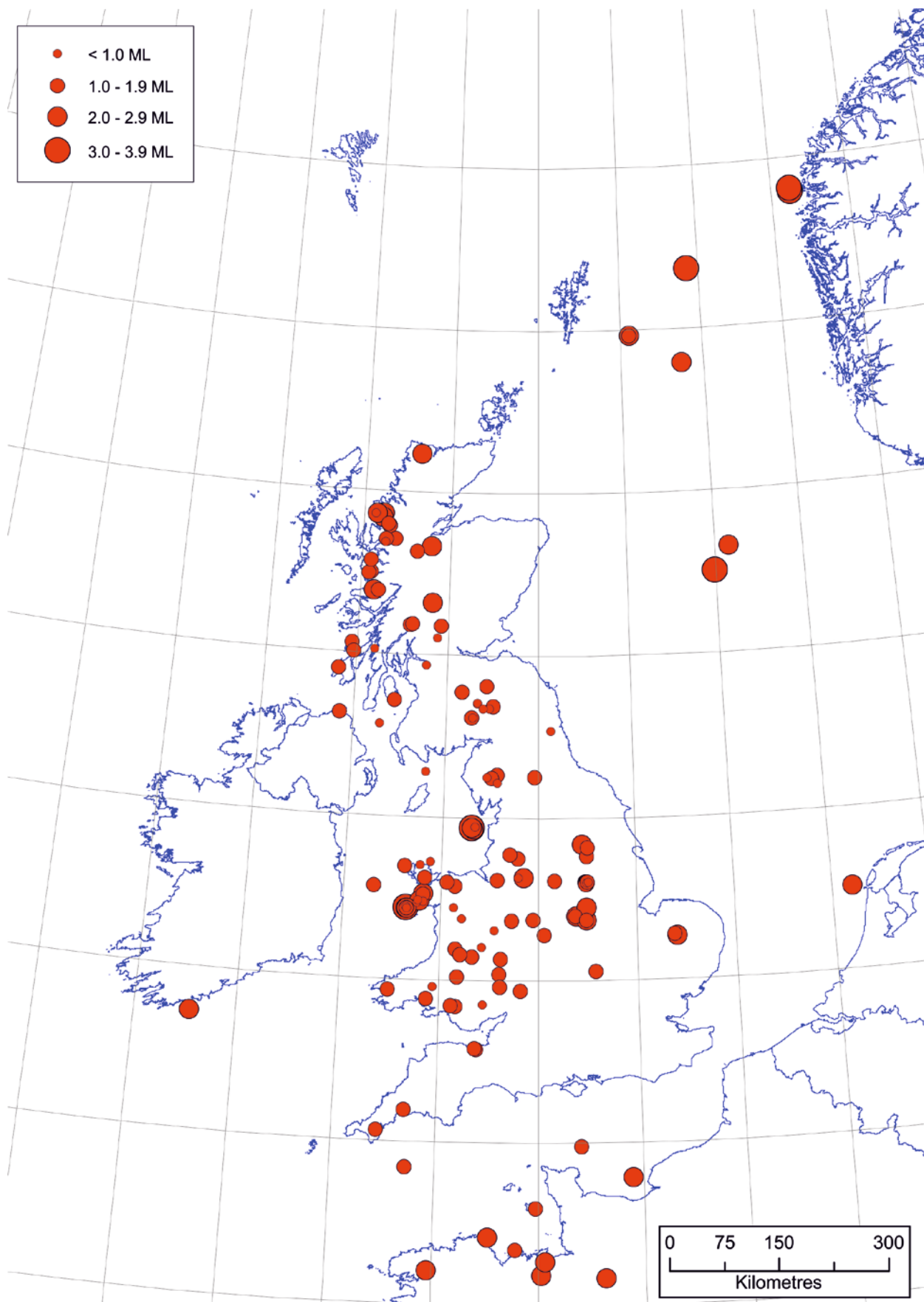


Figure 1. Epicentre map of earthquakes in 2013 as listed in Table 1.

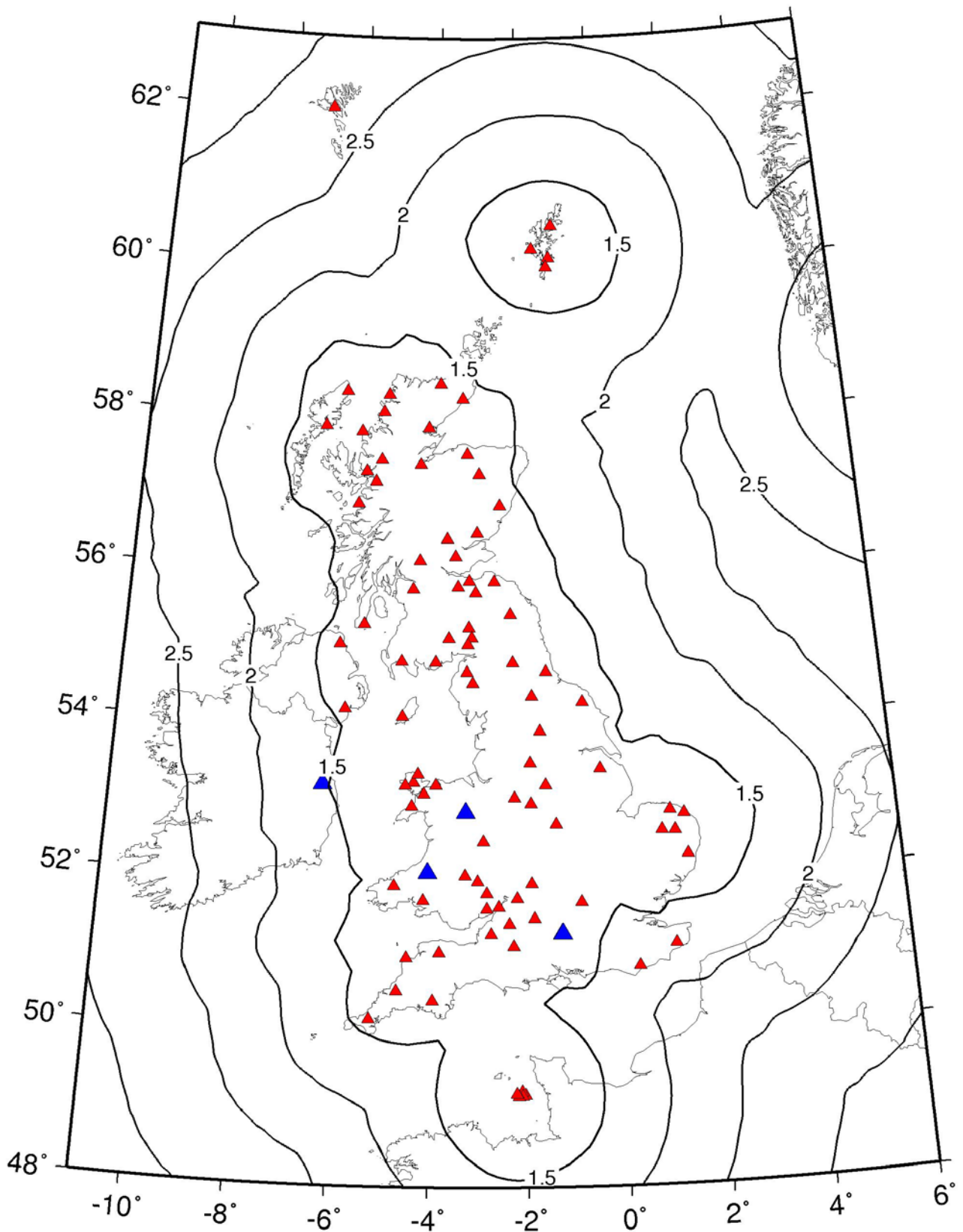


Figure 2. Seismograph stations operated by BGS during 2013 (red) along with station operated by other agencies in the British Isles and used for automatic detection (blue). The contours show earthquake detection capability in terms of Richter local magnitude (ML) calculated for average background noise conditions (4nm) where the detection criterion is that the signal has to exceed 4nm at 10Hz at 4 stations.

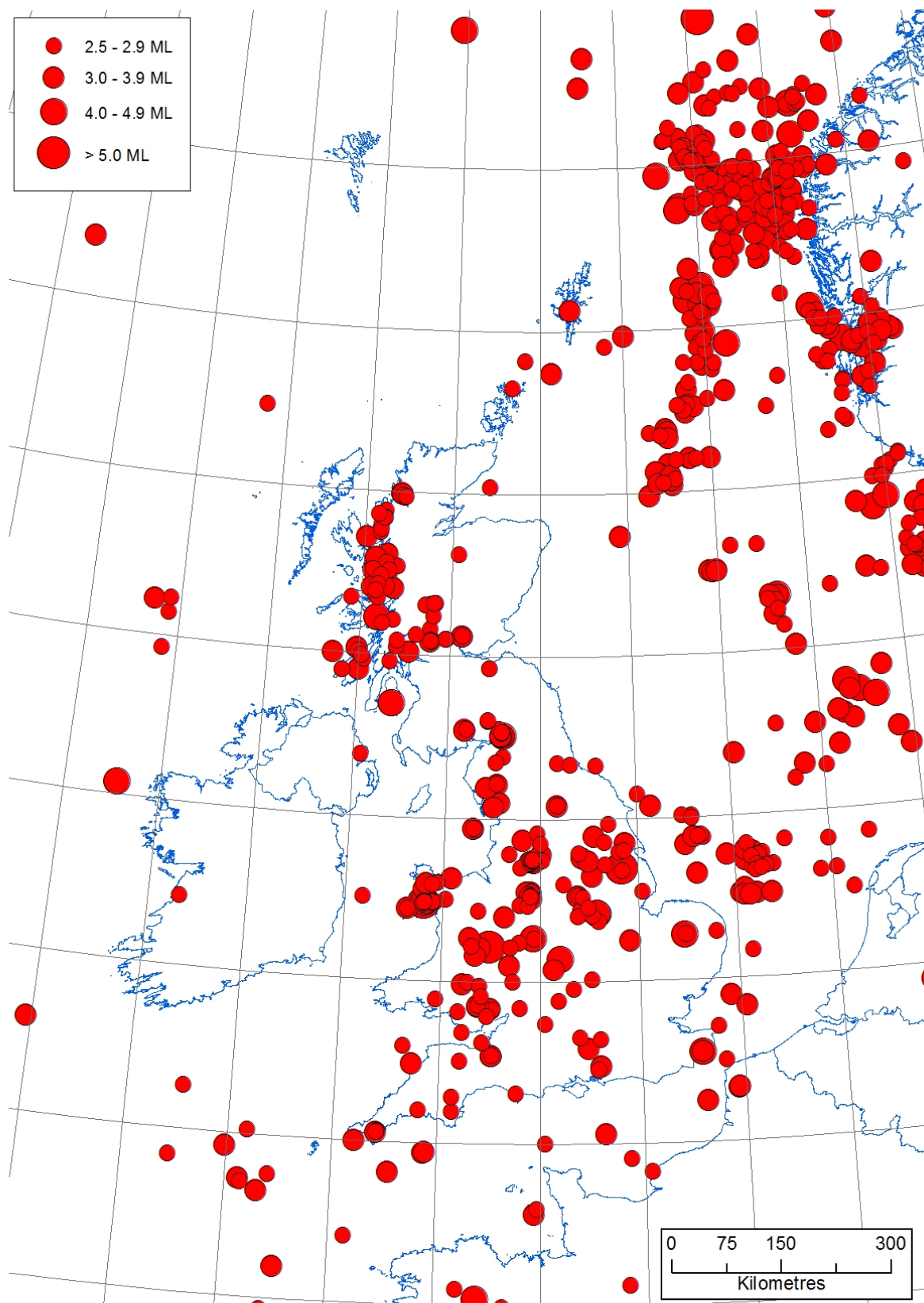


Figure 3. Epicentres of earthquakes with magnitudes of 2.5 ML and above, in the period 1979 to 2013.



Figure 4. Epicentres of earthquakes with magnitudes of 3.5 ML and above, in the period 1970 - 2013.

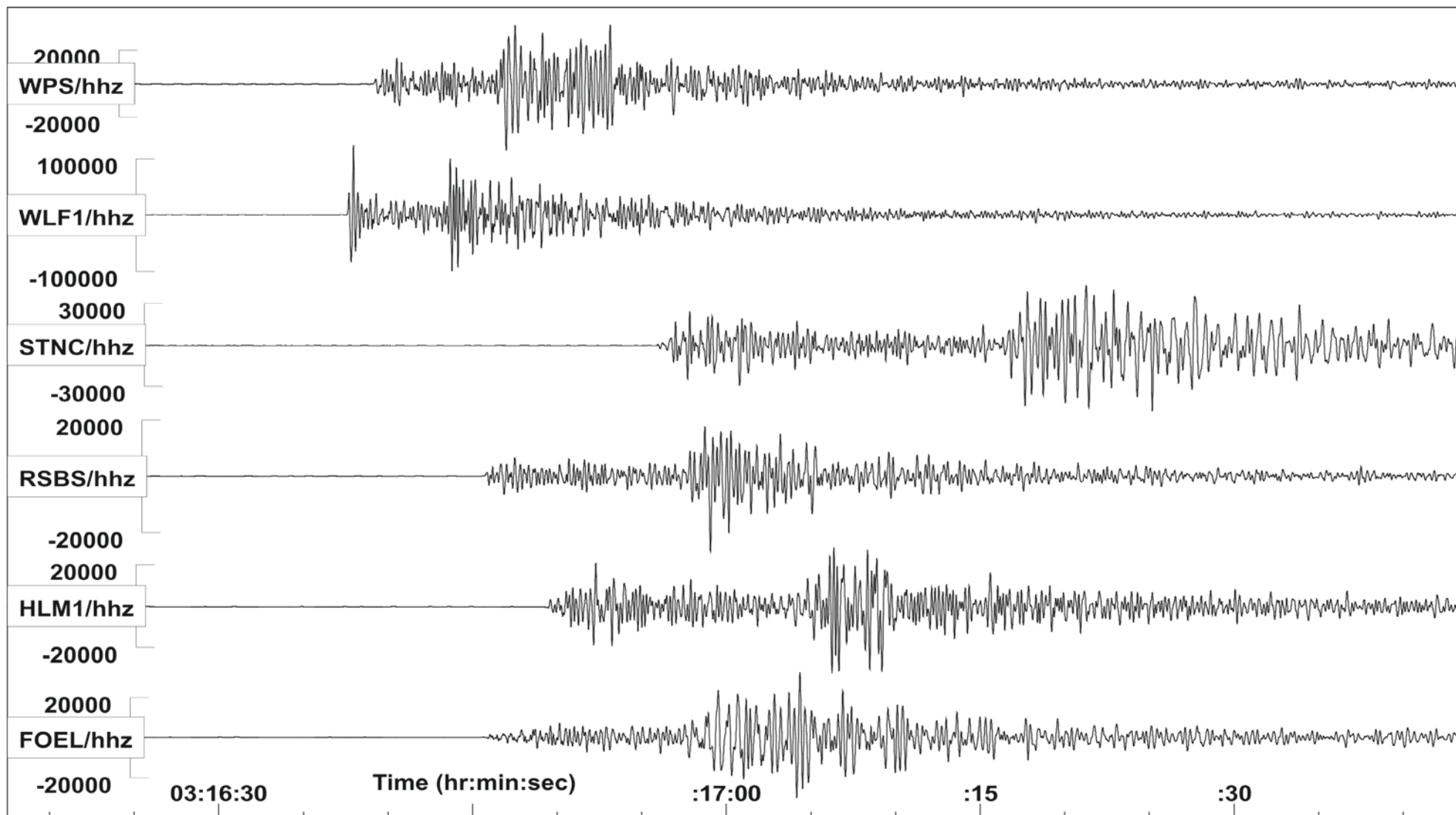


Figure 5. Seismograms of the ground displacement from the magnitude 3.8 ML Lley Peninsula earthquake, 29 May 2013, recorded by BGS seismograph stations.

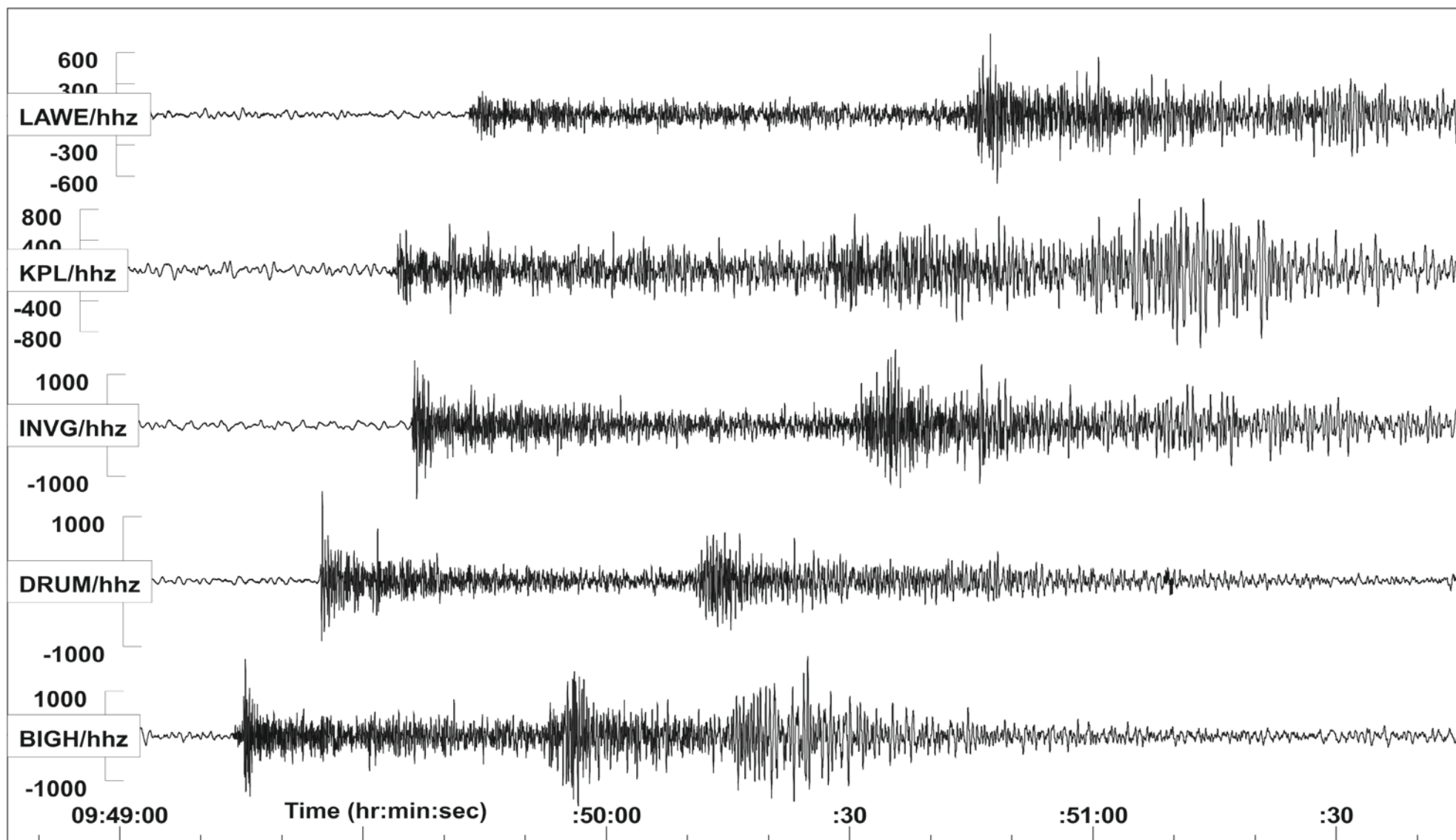


Figure 6. Seismograms of the ground displacement from the magnitude 3.4 ML Northern North Sea earthquake, 1 December 2013, recorded by BGS seismograph stations.

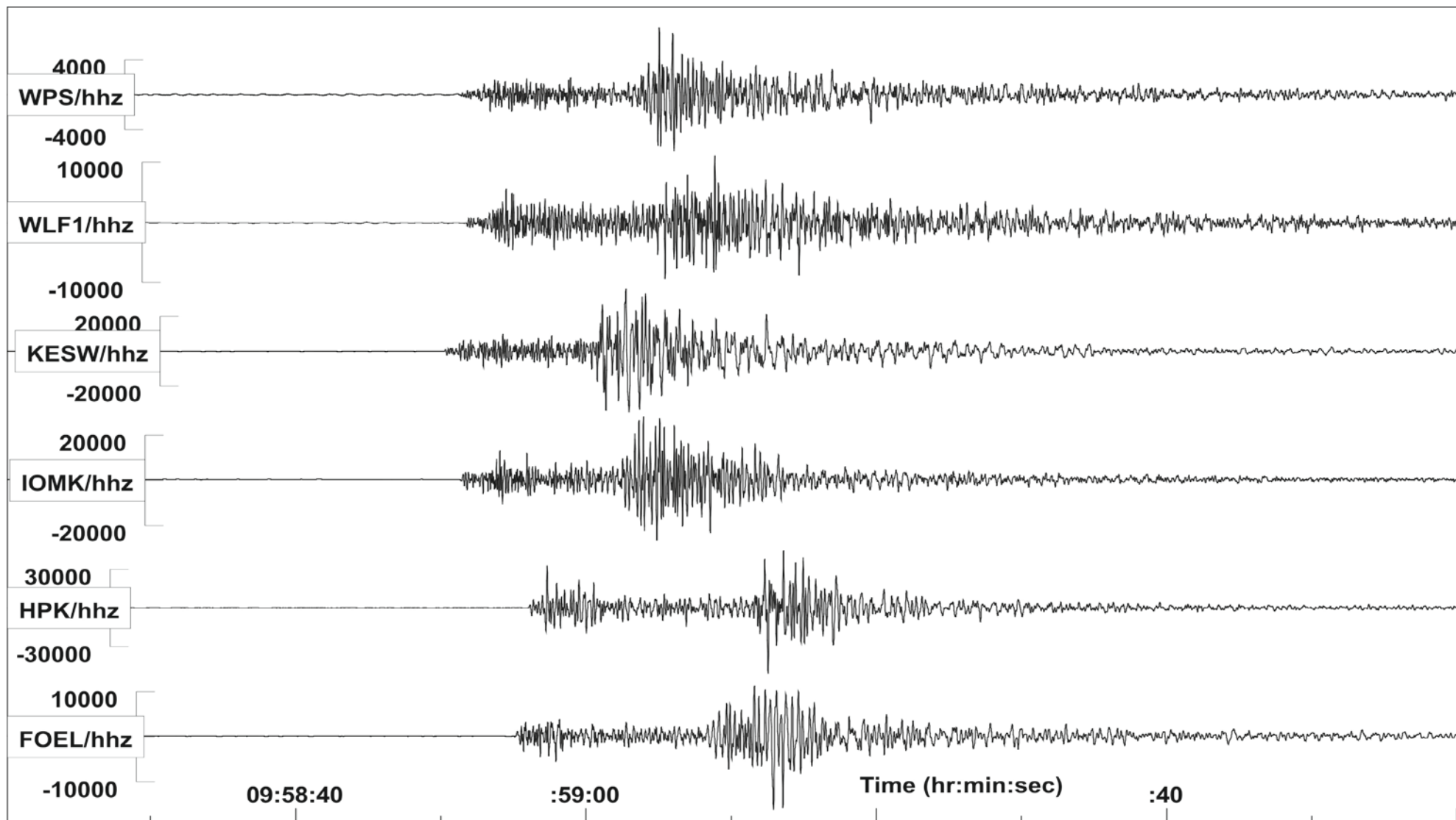


Figure 7. Seismograms of the ground displacement from the magnitude 3.3 ML Irish Sea earthquake, 25 August 2013, recorded by BGS seismograph stations.

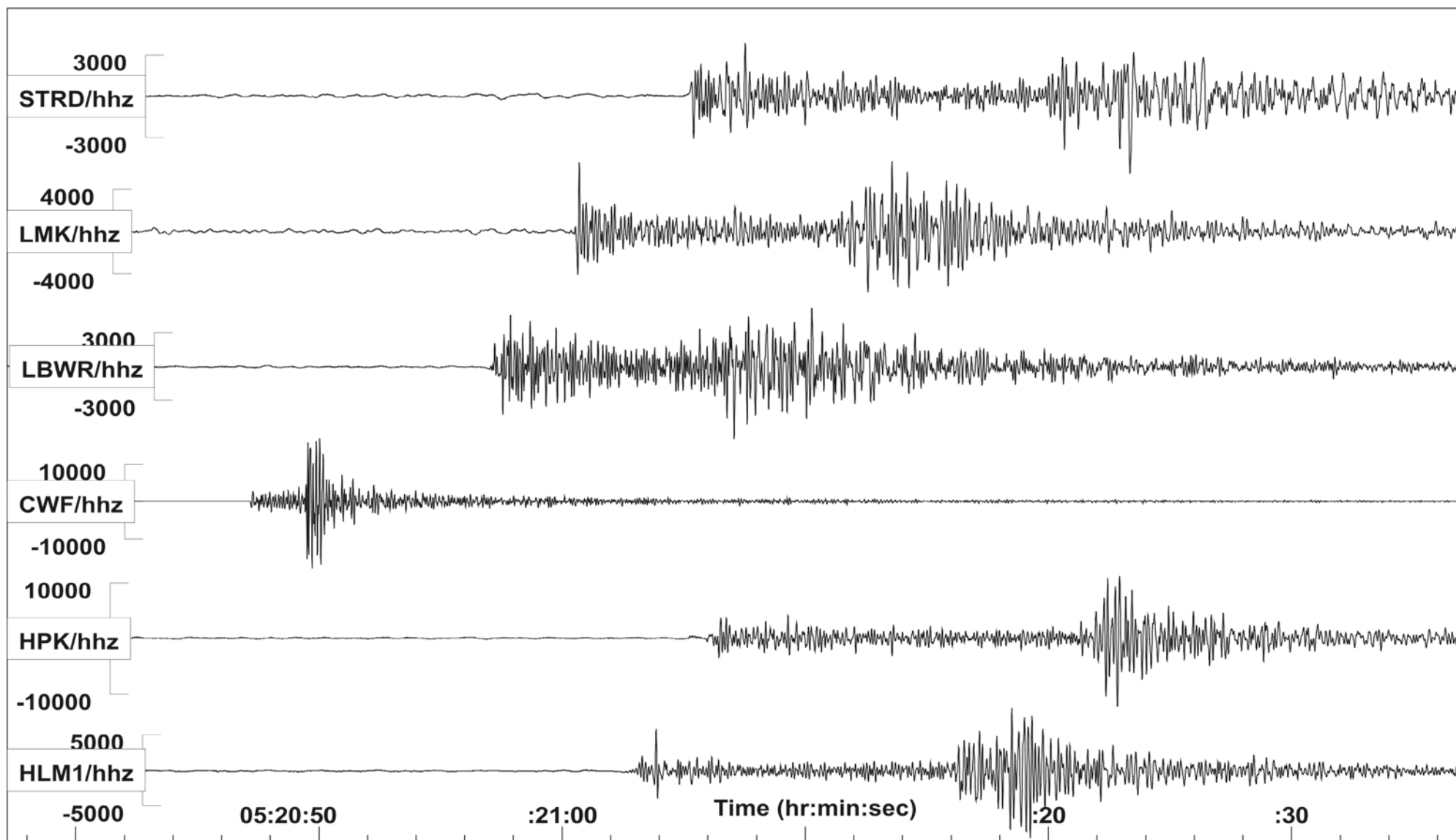


Figure 8. Seismograms of the ground displacement from the magnitude 2.9 ML Loughborough, Leicestershire earthquake, 18 January 2013, recorded by BGS seismograph stations.

TABLE 1 : CATALOGUE OF EVENTS : 2013

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20130101	082709.9	56.05	-4.29	257.6	686.4	7.3	0.7	BALFRON, STIRLING		4	172	0.20	2.46	0.00	
20130105	231500.2	53.02	4.41	830.0	366.1	5.0	2.7	SOUTHERN NORTH SEA		7	320	0.40	9.93	0.00	
20130112	035903.1	53.20	-1.02	465.3	367.7	1.1	1.4	NEW OLLERTON, NOTTS	3	8	219	0.50	6.38	0.00	C/F, FELT N OLLERTON
20130114	100902.9	53.19	-1.03	465.1	366.7	1.1	1.8	NEW OLLERTON, NOTTS	3	8	219	0.60	1.53	0.00	C/F, FELT N OLLERTON
20130114	135124.3	49.96	-1.19	458.0	6.8	5.0	1.9	ENGLISH CHANNEL		5	290	0.10	3.45	0.00	70KM SOUTH OF I.O.W
20130118	052044.4	52.80	-1.25	450.6	322.9	13.5	2.9	LOUGHBOROUGH, LEICS	4	19	102	0.20	2.47	1.80	FELT LEICESTERSHIRE...
20130119	145907.6	53.13	-4.33	244.5	361.4	11.8	0.7	CAERNARFON, GWYNEDD		5	201	0.10	5.45	6.60	
20130121	114004.1	52.80	-1.26	450.1	322.8	11.2	1.4	LOUGHBOROUGH, LEICS	2	5	113	0.30	3.88	3.20	FELT LOUGHBOROUGH
20130131	041607.8	58.47	-4.75	239.8	956.2	2.1	2.4	LAIG, HIGHLAND	3	9	202	0.50	3.52	6.10	FELT ERIBOLL
20130131	093809.8	53.23	-1.69	421.0	370.3	12.2	1.6	BAKEWELL, DERBYSHIRE		5	152	0.10	2.66	1.40	
20130204	105156.8	52.75	-1.04	464.5	317.2	2.8	1.6	LOUGHBOROUGH, LEICS		6	294	0.60	3.84	0.00	
20130204	105159.0	52.75	-1.04	464.5	317.2	2.8	2.4	LOUGHBOROUGH, LEICS	2	9	122	0.30	3.41	3.80	FELT LOUGHBOROUGH
20130207	224104.1	53.06	-4.37	240.9	353.8	16.7	2.3	CAERNARFON BAY, GWYNEDD	3	19	159	0.20	2.77	3.00	FELT GWYNEDD
20130207	224454.5	53.05	-4.37	241.3	352.6	14.0	1.9	CAERNARFON BAY, GWYNEDD	3	15	160	0.20	2.95	1.90	FELT GWYNEDD
20130208	180422.7	51.68	-3.66	285.0	199.4	3.1	1.1	MAESTEG, BRIDGEND		6	144	0.40	4.33	3.30	8KM NORTH OF MAESTEG
20130209	201355.6	53.51	-2.44	371.1	401.0	12.2	1.7	LEIGH, GTR MANCHESTER		12	74	0.20	1.80	2.70	
20130209	215056.8	51.15	-3.25	312.9	139.5	7.9	1.1	WATCHET, SOMERSET		7	219	0.20	3.92	8.30	6KM SE OF WATCHET
20130209	215120.5	51.16	-3.27	311.1	141.5	4.0	1.1	WATCHET, SOMERSET		6	216	0.30	6.74	9.30	6KM SE OF WATCHET
20130212	191907.9	52.77	-3.58	293.3	319.8	20.3	0.9	LLANWDDYN, POWYS		7	93	0.10	1.84	1.70	8KM WNW OF LLANWDDYN
20130213	103735.8	53.20	-1.02	465.3	367.9	1.2	1.5	NEW OLLERTON, NOTTS	3	5	226	0.10	1.12	0.00	C/F, FELT N OLLERTON
20130214	174019.9	55.14	-5.45	180.3	587.8	7.5	0.9	NORTH CHANNEL		5	179	0.40	5.96	1.40	30KM WNW BALLANTRAE
20130215	123535.2	48.33	-0.76	492.3	-173.5	5.7	2.2	NORTHWEST FRANCE		5	356	0.40	4.34	0.00	140KM SE OF JERSEY
20130216	064542.9	52.56	0.75	586.2	299.9	9.1	1.4	WATTON, NORFOLK		3	303	0.20	1.37	3.90	5KM WEST OF WATTON
20130216	070250.8	56.05	-5.63	174.1	689.9	3.6	0.8	TAYVALLICH, ARGYLL/BUTE		6	250	0.20	4.05	0.00	
20130217	022926.5	53.24	-2.86	342.8	371.7	11.3	1.0	ELLESMERE PORT, CHESHIRE		5	135	0.10	4.12	5.30	
20130219	035239.4	53.68	-1.11	458.5	421.2	1.3	2.1	HENSALL, N YORKSHIRE	3	8	163	0.40	3.89	0.00	C/F, FELT HENSALL
20130220	114155.4	48.37	-1.96	403.0	-170.0	4.1	2.4	NORTHWEST FRANCE		5	354	0.10	9.69	0.00	90KM SOUTH OF JERSEY
20130225	073717.8	52.39	-3.70	284.3	278.1	5.8	1.4	LLANGURIG, POWYS		9	102	0.10	1.30	3.30	
20130227	101331.4	55.37	-3.00	336.4	609.0	4.3	1.7	HAWICK, BORDERS	2	18	110	0.40	4.27	0.00	FELT HAWICK
20130227	235701.9	52.90	-1.04	464.7	334.1	7.9	2.5	COTGRAVE, NOTTS	3	15	100	0.30	1.94	4.00	FELT NOTTS...
20130228	005229.3	52.90	-1.06	463.0	333.8	8.5	1.3	COTGRAVE, NOTTS		4	240	0.20	5.90	3.00	
20130304	032604.5	64.51	-4.21			10.0	3.5	NORWEGIAN SEA		15	313	0.30	2.45	0.00	300KM NE OF TORSHAVN
20130306	131613.7	48.41	-4.11	243.6	-164.0	8.2	2.2	NORTHWEST FRANCE		4	304	0.40	5.01	0.00	165KM SW OF JERSEY
20130308	235116.0	56.20	-4.25	260.4	703.5	5.1	0.5	CALLANDER, STIRLING		4	171	0.10	2.33	2.00	
20130310	211829.3	57.00	-5.79	169.5	795.8	7.5	1.8	MALLAIG, HIGHLAND	2	12	187	0.60	6.14	7.20	FELT MALLAIG
20130315	104351.0	57.01	1.97	640.9	798.4	14.2	3.1	CENTRAL NORTH SEA		22	274	0.30	8.12	3.20	250KM EAST ABERDEEN
20130316	070325.3	52.54	0.79	589.1	297.7	4.9	2.1	WATTON, NORFOLK		4	199	0.10	8.98	5.40	4KM SW OF WATTON
20130319	010046.3	52.88	-2.29	380.2	331.6	9.9	0.9	STONE, STAFFORDSHIRE		5	149	0.10	1.34	2.50	
20130321	041348.1	54.54	-2.88	342.9	516.2	3.0	1.2	GLENRIDDING, CUMBRIA	2	10	102	0.30	3.83	6.60	FELT GLENRIDDING
20130322	103243.4	61.58	4.47	743.2	1317.3	15.0	3.7	NORWEGIAN COAST		10	170	0.70	2.30	3.20	340KM ENE OF LERWICK

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YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20130322	125759.9	52.97	-4.46	235.0	343.9	12.9	2.2	LLEYN PENINSULA		11	156	0.30	3.42	3.20	5KM NE OF NEFYN
20130322	135221.5	61.62	4.47	742.9	1320.9	6.3	3.5	NORWEGIAN COAST		6	171	0.40	6.67	7.60	345KM ENE OF LERWICK
20130324	220233.7	57.72	-5.55	188.8	875.0	7.5	2.0	GAIRLOCH,HIGHLAND	3	10	219	0.40	9.77	7.20	FELT GAIRLOCH...
20130328	000553.3	54.57	-4.42	243.7	521.9	10.1	0.4	IRISH SEA		3	243	0.30	8.25	3.30	
20130328	202534.3	52.75	-2.12	391.6	317.1	7.5	1.6	PENKRIDGE,STAFFS		10	90	0.30	2.33	6.20	
20130331	080017.1	52.98	-4.39	239.7	345.3	10.9	0.5	LLEYN PENINSULA		4	298	0.20	3.17	2.80	
20130402	073440.1	55.37	-3.40	311.4	609.0	4.1	0.8	MOFFAT,D & G		3	307	0.00	1.88	2.00	4KM NE OF MOFFAT
20130404	183951.1	54.51	-2.09	394.3	512.4	8.5	1.1	BOWES,COUNTY DURHAM		3	266	0.40	3.76	2.80	
20130405	234950.5	55.87	-4.47	245.4	666.3	7.0	0.5	PAISLEY,RENFREWSHIRE		5	165	0.10	2.83	2.10	
20130406	175043.1	55.37	-3.38	312.7	609.5	4.7	0.3	MOFFAT,D & G		3	311	0.10	3.38	0.00	5KM NE OF MOFFAT
20130407	080812.1	51.69	-3.77	277.9	200.7	9.2	1.2	NEATH,NEATH PORT TALBOT		6	109	0.30	3.32	4.50	
20130410	015849.7	52.27	-2.77	347.3	263.8	2.5	1.0	YARPOLE,HEREFORDSHIRE		4	197	0.20	6.05	2.60	
20130419	182100.0	54.43	-2.89	342.5	504.6	4.9	0.7	KENTMERE,CUMBRIA		3	217	0.10	1.22	0.00	
20130420	113208.6	52.56	-1.89	407.5	296.3	8.0	1.3	WALSALL,WEST MIDLANDS		7	129	0.50	6.50	3.90	
20130425	214009.0	53.45	-4.25	250.6	397.6	17.4	0.6	ANGLESEY,NORTH WALES		5	228	0.00	1.75	1.20	OFFSHORE LOCATION
20130426	194212.0	56.36	-4.17	265.6	720.9	2.7	1.1	COMRIE,PERTH/KINROSS		5	160	0.20	5.08	1.40	10KM WEST OF COMRIE
20130428	025424.1	55.23	-3.42	309.4	594.4	3.5	0.7	JOHNSTONEBRIDGE,D & G		3	231	0.20	3.77	0.00	
20130428	175610.9	55.24	-3.43	309.3	594.8	4.1	1.1	JOHNSTONEBRIDGE,D & G		6	207	0.10	2.16	0.00	
20130429	053324.9	52.74	-2.56	362.5	316.3	3.1	1.0	TELFORD,SHROPSHIRE		4	228	0.30	2.24	7.90	9KM NW OF TELFORD
20130501	051951.8	52.08	-2.81	344.6	242.3	7.7	1.0	HEREFORD,HEREFORDSHIRE		4	185	0.10	4.42	4.40	5KM WNW OF HEREFORD
20130505	160745.1	50.39	-4.62	213.9	58.0	4.5	1.8	LOSTWITHIEL,CORNWALL	2	4	158	0.30	4.42	6.70	FELT PAR & ST NEOT
20130508	005842.9	51.91	-4.13	253.3	226.3	12.9	0.9	BRECHFA,CARMARTHENSHIRE		4	196	0.30	2.09	3.20	
20130509	200554.1	57.58	-5.41	196.3	859.5	2.4	1.3	TORRIDON,HIGHLAND		7	192	0.30	5.46	3.20	7KM NE OF TORRIDON
20130512	022624.6	54.50	-3.11	328.4	512.5	9.8	0.7	GRASMERE,CUMBRIA		3	293	0.10	4.40	2.60	7KM NW OF GRASMERE
20130515	064300.7	57.27	-4.76	233.7	823.2	7.5	1.4	CANNICH,HIGHLAND		7	103	0.40	5.33	2.60	8KM SOUTH OF CANNICH
20130515	174348.6	57.67	-5.58	186.5	869.8	7.7	2.8	GAIRLOCH,HIGHLAND	3	18	107	0.20	2.79	4.40	FELT GAIRLOCH...
20130518	065753.0	56.78	-5.61	179.2	771.1	8.5	1.4	ACHARACLE,HIGHLAND		9	166	0.30	7.11	5.40	11KM ENE ACHARACLE
20130518	191802.8	56.78	-5.71	173.1	771.1	10.4	2.9	ACHARACLE,HIGHLAND	3	20	124	0.30	5.63	3.60	FELT ACHARACLE...
20130527	160434.2	51.88	-2.37	374.3	220.3	3.6	1.1	HUNTLEY,GLOUCESTERSHIRE		5	133	0.30	7.13	4.90	
20130529	031628.9	52.88	-4.72	217.0	335.2	10.5	3.8	LLEYN PENINSULA	4	30	159	0.40	4.12	3.10	FELT GWYNEDD...
20130529	032039.5	52.88	-4.71	218.0	334.7	9.9	1.7	LLEYN PENINSULA	2	13	179	0.20	3.94	4.70	FELT BRYNCROES...
20130529	174927.8	57.58	-5.43	194.8	859.4	2.5	1.5	TORRIDON,HIGHLAND		11	91	0.40	4.90	4.90	7KM EAST OF TORRIDON
20130529	183343.4	57.57	-5.42	195.6	858.3	2.5	1.4	TORRIDON,HIGHLAND		11	89	0.50	4.83	4.80	7KM EAST OF TORRIDON
20130530	220628.2	52.89	-4.73	216.6	336.2	11.4	0.8	LLEYN PENINSULA	2	9	193	0.20	2.69	2.60	FELT BRYNCROES...
20130531	062226.8	52.88	-4.71	217.7	335.0	9.5	1.4	LLEYN PENINSULA	2	11	180	0.20	2.56	3.30	FELT BRYNCROES...
20130531	183432.0	48.77	-0.74	492.7	-125.4	3.2	1.7	NORTHWEST FRANCE		6	345	0.10	3.80	2.50	100KM SE OF JERSEY
20130602	025657.2	56.12	-6.13	143.2	699.2	7.9	1.5	COLONSAY,ARGYLL/BUTE	2	8	193	0.30	4.55	6.30	FELT SCALASAIG
20130610	031213.3	59.93	0.20	522.7	1117.8	7.5	2.0	NORTHERN NORTH SEA		5	279	0.50	6.48	0.00	80KM ESE OF LERWICK
20130610	031315.8	59.93	0.20	522.7	1117.8	7.5	1.6	NORTHERN NORTH SEA		5	279	0.50	6.25	0.00	80KM ESE OF LERWICK
20130614	202139.7	56.99	-5.85	166.3	795.1	6.7	1.3	MALLAIG,HIGHLAND		6	216	0.20	1.05	1.30	

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20130616	225830.5	53.22	-1.06	462.7	369.8	1.2	1.2	NEW OLLERTON,NOTTS		4	221	0.20	5.41	0.00	C/F
20130623	120807.7	56.01	-6.07	146.2	687.0	8.6	1.8	JURA,ARGYLL/BUTE		8	188	0.40	9.02	2.10	
20130626	035153.8	53.53	-1.01	465.3	404.5	1.1	1.9	DONCASTER,S YORKSHIRE	2	7	144	0.50	4.77	0.00	C/F,FELT FOSTERHOUSES
20130626	195938.2	51.71	-3.14	321.4	201.7	12.5	0.9	BRYNITHEL,BLAENAU GWENT		5	201	0.10	1.50	2.40	
20130626	222801.5	52.88	-4.72	217.1	334.8	8.6	2.7	LLEYN PENINSULA	3	17	70	0.30	2.36	3.30	FELT GWYNEDD
20130626	222829.3	52.88	-4.70	218.4	334.5	8.4	2.4	LLEYN PENINSULA	3	11	179	0.40	4.34	5.70	FELT GWYNEDD
20130626	223028.1	52.88	-4.71	218.0	334.7	7.9	1.2	LLEYN PENINSULA	2	11	179	0.30	3.54	5.00	FELT BRYNCROES
20130629	143529.6	53.25	-4.35	243.2	375.6	13.5	1.0	LLANGEFNI,ANGLESEY		7	133	0.10	2.33	1.80	
20130630	121307.0	49.69	-4.56	215.2	-20.6	8.4	1.8	ENGLISH CHANNEL		6	213	0.50	9.51	3.30	60KM SE OF FALMOUTH
20130701	235835.4	52.88	-4.73	216.1	334.9	8.2	0.6	LLEYN PENINSULA	2	7	184	0.20	2.40	0.00	FELT ABERDARON
20130702	214415.3	50.13	-5.14	175.9	30.9	2.7	1.3	FALMOUTH,CORNWALL	3	3	243	0.30	9.70	4.50	FELT FALMOUTH...
20130703	213701.0	48.54	-1.89	408.3	-151.6	7.7	2.0	NORTHWEST FRANCE		6	179	0.40	7.86	5.70	75KM SSE OF JERSEY
20130706	140312.7	48.84	-2.98	328.1	-117.5	7.5	2.2	NORTHWEST FRANCE		11	180	0.40	5.25	0.00	65KM SW OF JERSEY
20130713	161835.9	55.35	-3.07	332.0	607.0	3.1	0.8	ETTRICK,BORDERS		6	174	0.10	2.38	2.30	8KM SSE OF ETTRICK
20130715	213120.4	53.16	-3.73	284.3	364.1	4.3	1.4	LLANRWST,CONWY	2	13	129	0.20	2.44	3.40	FELT LLANLLECHID
20130716	040400.9	57.72	-5.72	178.5	875.7	5.5	2.8	GAIRLOCH,HIGHLAND	3	15	117	0.20	3.13	3.30	FELT GAIRLOCH...
20130716	063550.7	57.71	-5.76	176.2	875.1	5.2	0.7	GAIRLOCH,HIGHLAND	2	4	179	0.20	5.39	0.00	FELT GAIRLOCH
20130718	001050.2	53.41	-4.46	236.8	393.1	10.9	0.8	ANGLESEY,NORTH WALES		6	104	0.10	1.90	0.70	
20130729	105031.7	53.39	-4.78	215.4	392.1	8.0	1.2	ANGLESEY,NORTH WALES		8	225	0.10	2.56	1.80	OFFSHORE LOCATION
20130731	194555.5	48.68	-2.45	366.7	-135.8	7.4	1.2	NORTHWEST FRANCE		5	349	0.00	7.71	0.00	60KM SSW OF JERSEY
20130731	220925.5	55.80	-6.38	125.2	664.7	11.3	1.7	ISLAY,ARGYLL/BUTE	3	9	153	0.20	3.53	3.70	FELT ISLAY
20130811	060506.2	53.27	-2.32	378.5	374.9	10.4	2.1	KNUTSFORD,CHESHIRE		10	89	0.30	3.22	4.40	
20130812	105218.1	55.43	-5.14	201.5	619.6	7.7	1.3	ARRAN,NORTH AYRSHIRE		5	152	0.50	6.53	2.80	
20130825	053748.3	53.86	-3.38	309.3	441.7	4.2	2.5	IRISH SEA	3	16	201	0.20	3.92	3.40	FELT FLEETWOOD...
20130825	071324.2	53.89	-3.34	311.7	444.7	5.4	0.9	IRISH SEA		9	164	0.30	5.24	5.40	
20130825	095836.5	53.88	-3.39	308.4	443.8	5.3	3.3	IRISH SEA	3	26	56	0.50	3.62	7.60	FELT FLEETWOOD...
20130827	100606.0	56.64	-4.37	254.4	752.4	2.8	2.7	GLEN LYON,PERTH/KINROSS	3	19	79	0.40	4.83	6.20	FELT GLENLYON...
20130828	142746.3	52.29	-3.36	307.4	267.1	3.7	1.3	LLANDRINDOD WELLS,POWYS		8	134	0.30	4.46	6.50	
20130831	011941.9	55.62	-3.13	328.5	636.9	4.7	1.8	PEEBLES,BORDERS	3	12	135	0.30	4.34	4.20	FELT PEEBLES...
20130831	063611.4	53.89	-3.40	307.8	444.2	10.6	2.6	IRISH SEA	3	23	88	0.40	5.61	8.30	FELT FLEETWOOD...
20130901	160715.0	57.37	-5.49	190.0	835.9	4.3	0.7	LOCHCARRON,HIGHLAND		3	145	0.10	5.94	0.00	
20130901	192848.9	57.14	-5.80	169.8	811.9	6.8	1.1	SKYE,HIGHLAND		4	217	0.30	2.01	1.40	
20130901	212847.7	52.32	-3.60	290.9	269.9	10.8	1.1	RHAYADER,POWYS		7	113	0.20	2.62	3.30	
20130903	064436.2	56.36	-4.85	223.8	722.2	3.8	1.7	DALMALLY,ARGYLL/BUTE		12	84	0.20	4.34	6.80	8KM SE OF DALMALLY
20130906	172106.7	52.96	-4.36	241.2	342.9	19.1	0.8	PWLLHELI,GWYNEDD		5	241	0.10	3.11	4.80	10KM NE OF PWLLHELI
20130909	205148.8	56.37	-4.81	226.6	723.6	7.1	1.6	TYNDRUM,STIRLING		9	89	0.60	6.21	1.50	10KM SW OF TYNDRUM
20130913	090552.1	55.55	-3.67	294.8	629.7	4.9	1.1	ABINGTON,S LANARKSHIRE		4	264	0.10	4.85	0.00	6KM NNE OF ABINGTON
20130917	032219.9	51.87	-5.03	191.4	223.0	10.3	1.0	ROCH,PEMBROKESHIRE		4	285	0.20	5.16	1.70	
20130922	230602.1	51.76	-4.25	244.6	209.6	2.7	1.4	LLANNON,CARMARTHENSHIRE		4	268	0.10	2.83	2.10	9KM WEST OF LLANNON
20130926	062112.3	53.64	-1.00	465.8	416.3	1.1	1.7	DONCASTER,S YORKSHIRE		5	163	0.40	4.94	0.00	C/F

TABLE 1 : CATALOGUE OF EVENTS : 2013

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20130927	030329.9	55.35	-3.22	322.8	607.1	3.2	0.6	ESKDALEMUIR,D & G		4	155	0.30	1.38	0.00	
20130929	085408.8	59.58	1.46	595.4	1081.6	17.1	2.8	NORTHERN NORTH SEA		19	137	0.30	4.33	7.70	
20130930	083218.4	53.27	-2.43	371.1	374.7	13.0	0.7	WINCHAM,CHESHIRE		5	161	0.20	3.18	3.70	
20131004	204913.8	57.34	-4.44	253.0	830.1	2.6	2.4	DRUMNADROCHIT,HIGHLAND	3	13	165	0.40	7.78	2.70	FELT DRUMNADROCHIT...
20131005	022225.2	54.50	-3.01	334.9	511.8	4.3	1.8	GRASMERE,CUMBRIA		9	267	0.00	5.59	3.40	
20131007	072509.7	57.41	-5.27	203.6	840.5	5.3	1.1	STRATHCARRON,HIGHLAND		5	155	0.30	3.89	2.20	
20131013	205401.2	53.21	-3.89	273.7	369.5	7.2	1.0	DOLGARROG,CONWY	3	9	179	0.10	2.72	2.90	FELT DOLGARROG...
20131015	114452.7	51.92	-2.78	346.1	224.9	19.6	1.0	ORCOP,HEREFORDSHIRE		4	116	0.10	3.94	3.10	
20131020	170644.6	53.55	-2.61	359.6	406.7	8.3	1.5	WIGAN,GTR MANCHESTER		9	82	0.20	2.80	6.90	
20131025	012820.8	57.59	-5.45	194.1	861.0	2.6	1.4	TORRIDON,HIGHLAND		7	198	0.50	8.86	7.40	
20131026	094513.8	55.26	-6.31	126.0	604.8	3.5	1.3	BALLINTOY,CO ANTRIM		3	240	0.20	8.81	3.30	OFFSHORE LOCATION
20131028	110919.6	57.30	2.31	659.6	831.9	9.5	2.8	CENTRAL NORTH SEA		13	257	0.30	8.55	2.60	265KM EAST ABERDEEN
20131103	233412.1	52.11	-0.86	477.8	246.8	9.7	1.2	MILTON KEYNES,BUCKS		5	169	0.20	5.87	9.90	
20131123	110016.8	52.41	-3.16	321.1	279.7	6.3	0.7	CLUN,SHROPSHIRE		5	169	0.10	2.40	5.20	8KM WEST OF CLUN
20131201	094820.6	60.73	1.69	601.0	1210.8	23.9	3.4	NORTHERN NORTH SEA		17	172	0.30	3.96	6.00	170KM ENE OF LERWICK
20131201	204536.5	55.08	-1.76	415.3	576.4	4.1	0.9	MORPETH,NORTHUMBERLAND		5	214	0.30	4.13	4.50	10KM SSW OF MORPETH
20131202	105302.4	57.41	-5.48	191.2	840.3	2.6	1.3	LOCHCARRON,HIGHLAND	2	6	170	0.30	2.00	2.60	FELT LOCHCARRON
20131204	075729.9	51.45	-8.92	-80.8	195.3	14.4	2.3	CELTIC SEA	3	6	184	0.30	5.39	1.00	FELT COUNTY CORK
20131206	052126.2	52.94	-4.52	230.8	341.3	8.8	0.8	LLEYN PENINSULA		4	261	0.30	5.54	0.00	
20131210	075708.8	53.21	-1.01	466.3	368.6	1.1	1.4	NEW OLLERTON,NOTTS		6	143	0.60	5.14	0.00	C/F
20131210	191216.3	53.21	-1.02	465.3	368.2	1.1	0.9	NEW OLLERTON,NOTTS		4	226	0.20	5.00	0.00	C/F
20131212	030112.1	53.21	-1.04	464.0	368.1	1.2	1.5	NEW OLLERTON,NOTTS	3	8	193	0.60	2.18	0.00	C/F,FELT N OLLERTON
20131212	200624.9	53.21	-1.06	462.6	368.4	1.1	1.6	NEW OLLERTON,NOTTS	3	8	108	0.30	4.75	0.00	C/F,FELT N OLLERTON
20131213	212409.1	53.21	-1.04	464.0	368.6	1.2	1.2	NEW OLLERTON,NOTTS		6	106	0.50	9.19	0.00	C/F
20131216	023159.5	53.21	-1.04	464.2	368.3	1.1	1.7	NEW OLLERTON,NOTTS	3	8	187	0.40	3.32	0.00	C/F,FELT N OLLERTON
20131217	150639.3	53.22	-1.04	463.8	369.5	1.2	1.5	NEW OLLERTON,NOTTS	3	5	223	0.50	1.79	0.00	C/F,FELT N OLLERTON
20131218	163515.0	53.21	-1.05	463.4	368.7	1.2	1.2	NEW OLLERTON,NOTTS	3	5	263	0.20	4.62	0.00	C/F,FELT N OLLERTON
20131219	093025.0	52.05	-3.66	286.3	239.9	4.5	1.9	LLANWRTYD WELLS,POWYS		9	144	0.30	2.28	1.20	
20131219	102721.8	53.22	-1.02	465.2	369.5	1.2	1.3	NEW OLLERTON,NOTTS		6	225	0.20	1.53	0.00	C/F
20131220	212317.2	53.20	-1.03	464.8	367.6	1.2	1.4	NEW OLLERTON,NOTTS		4	225	0.60	1.59	0.00	C/F
20131221	103737.7	53.15	-5.38	173.7	366.8	12.2	1.0	IRISH SEA		5	323	0.30	9.86	7.90	50KM WSW OF HOLYHEAD
20131222	101928.4	53.21	-1.00	466.4	368.5	1.1	1.1	NEW OLLERTON,NOTTS		3	267	0.40	1.46	0.00	C/F
20131226	012432.7	52.89	-3.75	282.5	334.2	11.8	0.9	BALA,GWYNEDD		8	124	0.30	4.26	1.90	10KM WSW OF BALA
20131226	013735.4	49.20	-2.07	394.8	-78.2	7.3	1.8	JERSEY,CHANNEL ISLANDS	3	8	127	0.10	0.85	0.60	FELT JERSEY
20131228	234556.9	53.19	-1.05	463.6	366.2	1.2	1.5	NEW OLLERTON,NOTTS	3	5	193	0.50	8.35	0.00	C/F,FELT N OLLERTON
20131229	151238.9	52.62	-2.92	337.9	302.9	11.5	0.9	PONTESBURY,SHROPSHIRE		5	200	0.10	4.04	1.40	
20131230	002034.9	53.22	-1.01	466.1	369.6	1.0	1.2	NEW OLLERTON,NOTTS		4	227	0.50	1.34	0.00	C/F
20131231	215325.3	53.22	-1.00	466.7	369.8	1.1	0.9	NEW OLLERTON,NOTTS		3	268	0.30	1.35	0.00	C/F

TABLE 2 : PHASE DATA

January 1 2013		Time: 08:27 09.9 UTC		Magnitude: 0.7 ML		LBWR		HE	52.0	ES	10:09	18.75			-0.42				
Lat: 56.049N		Lon: -4.286W		Depth: 7.3 km		LBWR		HN	52.0	IAML	10:09	20.18	88	0.36					
Grid Ref: 257.64 kmE		686.37 kmN		RMS: 0.20 secs		LBWR		HE	52.0	IAML	10:09	20.42	96	0.18					
Locality: BALFRON,STIRLING						CWF		HZ	54.0	EP	10:09	12.50			-0.08				
Velocity model: Lownet		Xnear: 100.0		Xfar: 200.0		CWF		HE	54.0	ES	10:09	19.59			-0.05				
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	CWF	HN	54.0	IAML	10:09	21.53	11	0.18	
EAB	EZ	15.8	EP			08:27	13.21			-0.01	CWF	HE	54.0	IAML	10:09	22.78	17	0.16	
INVG	HZ	44.7	EP			08:27	17.73			0.02	HPK	HZ	93.9	EP	10:09	18.45			-0.33
INVG	HE	44.7	ES			08:27	23.36			-0.08	HPK	HN	93.9	ES	10:09	31.24			0.88
INVG	HE	44.7	IAML			08:27	23.65	3	0.21		HPK	HE	93.9	IAML	10:09	34.50	44	0.18	
INVG	HN	44.7	IAML			08:27	24.45	4	0.23		HPK	HN	93.9	IAML	10:09	35.32	72	0.30	
LAWE	HZ	73.0	EP			08:27	22.39			0.31	HLM1	HZ	146.0	EP	10:09	27.55			0.85
LAWE	HN	73.0	ES			08:27	30.81			-0.18	HLM1	HE	146.0	IAML	10:09	47.72	19	0.36	
LAWE	HN	73.0	IAML			08:27	34.35	7	0.20		HLM1	HN	146.0	IAML	10:09	48.27	3	0.14	
LAWE	HE	73.0	IAML			08:27	34.59	12	0.12		FOEL	HZ	150.0	EP	10:09	28.04			0.78
GALL	HZ	134.0	EP			08:27	31.58			0.11	FOEL	HE	150.0	IAML	10:09	48.01	11	0.40	
GALL	HN	134.0	ES			08:27	46.99			-0.24	FOEL	HN	150.0	IAML	10:09	49.91	24	0.30	
GALL	HE	134.0	IAML			08:27	48.54	1	0.18		MCH1	HZ	189.0	EP	10:09	33.67			1.17
GALL	HN	134.0	IAML			08:27	48.64	1	0.23		MCH1	HE	189.0	IAML	10:09	57.00	13	0.42	
												MCH1	HN	189.0	IAML	10:09	58.89	12	0.30
January 5 2013		Time: 23:15 00.2 UTC		Magnitude: 2.7 ML		EDMD		HZ	192.0	EP	10:09	34.14			1.21				
Lat: 53.019N		Lon: 4.414W		Depth: 5.0 km		EDMD		HE	192.0	IAML	10:09	58.05	17	0.18					
Grid Ref: 829.97 kmE		366.15 kmN		RMS: 0.40 secs		EDMD		HN	192.0	IAML	10:09	59.55	14	0.18					
Locality: SOUTHERN NORTH SEA						MONM		HZ	193.0	EP	10:09	34.58			1.54				
Velocity model: North Sea		Xnear: 400.0		Xfar: 600.0		MONM		HE	193.0	IAML	10:10	00.64	15	0.34					
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	MONM	HN	193.0	IAML	10:10	02.13	15	0.21	
WACR	HZ	257.0	EP			23:15	37.36			0.20									
WACR	HN	257.0	ES			23:16	04.24			0.11									
WACR	HN	257.0	IAML			23:16	09.53	40	0.38										
WACR	HE	257.0	IAML			23:16	10.64	33	0.28										
CWF	HZ	386.0	EP			23:15	53.27			0.02									
CWF	HN	386.0	IAML			23:16	49.86	7	0.36										
CWF	HE	386.0	IAML			23:16	53.66	5	0.30										
HPK	HZ																		

TABLE 2 : PHASE DATA

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January 19 2013      Time: 14:59 07.6 UTC      Magnitude: 0.7 ML
Lat: 53.127N      Lon: -4.325W      Depth: 11.8 km
Grid Ref: 244.45 kmE 361.43 kmN      RMS: 0.10 secs
Locality: CAERNARFON, GWYNEDD
Velocity model: LleyN Xnear: 80.0 Xfar: 200.0
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
WLF1 HZ 18.7 EP 14:59 11.25 -0.09
WLF1 HE 18.7 ES 14:59 13.99 0.11
WLF1 HN 18.7 IAML 14:59 14.16 22 0.12
WLF1 HE 18.7 IAML 14:59 14.22 41 0.07
YRC EZ 21.7 EP 14:59 11.75 -0.01
WME EZ 30.1 EP 14:59 12.87 -0.18
WPS HZ 32.6 EP 14:59 13.55 0.12
WPS HN 32.6 IAML 14:59 17.36 5 0.14
WPS HE 32.6 IAML 14:59 17.90 5 0.09
FOEL HE 80.0 ES 14:59 29.98 0.04
FOEL HE 80.0 IAML 14:59 30.36 4 0.13
FOEL HN 80.0 IAML 14:59 31.17 4 0.13

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January 21 2013		Time: 11:40 04.1 UTC			Magnitude: 1.4 ML					
Lat: 52.800N		Lon: -1.257W			Depth: 11.2 km					
Grid Ref: 450.09 kmE		322.79 kmN			RMS: 0.30 secs					
Locality: LOUGHBOROUGH, LEICS										
Velocity comment: Lownet								Xnear: 100.0	Xfar: 200.0	
Comment: FELT LOUGHBOROUGH								Intensity: 2		
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
CWF	HZ	7.7	EP			11:40	06.37			-0.22
CWF	HE	7.7	ES			11:40	08.58			0.16
CWF	HN	7.7	IAML			11:40	08.72	146	0.08	
CWF	HE	7.7	IAML			11:40	08.81	150	0.07	
LBWR	HZ	73.9	EP			11:40	16.33			-0.12
LBWR	HN	73.9	ES			11:40	25.18			-0.30
LBWR	HN	73.9	IAML			11:40	26.03	11	0.19	
LBWR	HE	73.9	IAML			11:40	26.07	16	0.25	
LMK	HZ	96.0	EP			11:40	19.69			-0.15
LMK	HE	96.0	ES			11:40	31.86			0.51
WACR	HZ	128.0	EP			11:40	24.09			-0.33
WACR	HE	128.0	ES			11:40	39.09			-0.19
FOEL	HZ	131.0	EP			11:40	25.72			0.69
FOEL	HE	131.0	ES			11:40	40.47			0.14
FOEL	HE	131.0	IAML			11:40	41.89	8	0.27	
FOEL	HN	131.0	IAML			11:40	41.89	10	0.52	

January 31 2013		Time: 04:16 07.8 UTC				Magnitude: 2.4 ML				
Lat: 58.465N		Lon: -4.746W				Depth: 2.1 km				
Grid Ref: 239.84 kmE		956.21 kmN				RMS: 0.50 secs				
Locality: LAIG,HIGHLAND										
Velocity model: Lownet		Xnear: 200.0		Xfar: 400.0						
Comment: FELT ERIBOLL						Intensity: 3				
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
BIGH	HZ	48.9	IP		D	04:16	17.16			0.55
BIGH	HN	48.9	ES			04:16	22.32			-0.74
BIGH	HE	48.9	IAML			04:16	22.62	386	0.12	
BIGH	HN	48.9	IAML			04:16	22.71	539	0.13	
KAC	EZ	112.0	IP		D	04:16	26.73			0.22
MDO	EZ	116.0	IP		D	04:16	27.33			0.18
MCD	EZ	132.0	IP		C	04:16	29.85			0.29
KPL	HZ	136.0	EP			04:16	30.63			0.48
KPL	HN	136.0	ES			04:16	45.77			-0.71
KPL	HN	136.0	IAML			04:16	48.13	66	0.23	
KPL	HE	136.0	IAML			04:16	48.60	83	0.22	
MME1	EZ	166.0	IP		C	04:16	34.09			-0.38
DRUM	HZ	219.0	EP	9		04:16	42.55			1.36
DRUM	HE	219.0	ES			04:17	08.27			1.32
DRUM	HE	219.0	IAML			04:17	09.63	26	0.12	
DRUM	HN	219.0	IAML			04:17	10.24	24	0.12	
LRW	HZ	276.0	EP			04:16	48.07			-0.15
LRW	HN	276.0	ES			04:17	18.36			0.61
LRW	HN	276.0	IAML			04:17	29.63	11	0.30	
LRW	HE	276.0	IAML			04:17	32.18	14	0.55	
ESY	EZ	312.0	EP			04:16	52.42			-0.35

January 31 2013		Time: 09:38 09.8 UTC				Magnitude: 1.6 ML				
Lat: 53.229N		Lon: -1.685W				Depth: 12.2 km				
Grid Ref: 421.03 kmE		370.30 kmN				RMS: 0.10 secs				
Locality: BAKEWELL, DERBYSHIRE										
Velocity model: Lownet2 Xnear: 100.0 Xfar: 200.0										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
LBWR	HZ	19.4	IP		D	09:38	14.38			0.03
LBWR	HN	19.4	ES			09:38	17.69			0.05
LBWR	HN	19.4	IAML			09:38	17.77	178	0.14	
LBWR	HE	19.4	IAML			09:38	17.89	161	0.10	
STNC	HZ	38.1	EP			09:38	16.88			-0.01
STNC	HN	38.1	ES			09:38	21.94			-0.10
STNC	HN	38.1	IAML			09:38	22.09	43	0.16	
STNC	HE	38.1	IAML			09:38	22.43	43	0.27	
CWF	HZ	60.1	EP			09:38	20.08			-0.11
CWF	HE	60.1	IAML			09:38	28.14	14	0.20	

WFW	HN	60.1	IAML	09:38	28.57	14	0.14	
HPK	HZ	81.3	EP	09:38	23.49			0.24
HPK	HN	81.3	ES	09:38	32.81			-0.24
HPK	HE	81.3	IAML	09:38	35.26	146	0.16	
HPK	HN	81.3	IAML	09:38	35.49	81	0.17	
HLM1	HZ	113.0	EP	09:38	27.99			0.19
HLM1	HE	113.0	ES	09:38	40.90			-0.01
HLM1	HE	113.0	IAML	09:38	42.42	8	0.26	
HLM1	HN	113.0	IAML	09:38	42.53	5	0.34	

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February 4 2013      Time: 10:51 56.8 UTC      Magnitude: 1.6 ML
Lat: 52.748N         Lon: -1.044W              Depth: 2.8 km
Grid Ref: 464.52 kmE 317.17 kmN              RMS: 0.60 secs
Locality: LOUGHBOROUGH, LEICS
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0

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STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
CWF	HZ	17.8	EP			10:52	00.67			0.39
CWF	HN	17.8	ES			10:52	03.30			0.44
CWF	HE	17.8	IAML			10:52	03.42	156	0.08	
CWF	HN	17.8	IAML			10:52	03.54	195	0.08	
STNC	HZ	87.0	EP			10:52	10.58			-0.88
HLM1	HN	127.0	ES			10:52	32.70			-0.27
FOEL	HZ	146.0	EP			10:52	19.83			-0.68
MCH1	HZ	157.0	EP			10:52	22.45			0.43
MCH1	HN	157.0	ES			10:52	40.49			0.02
MONM	HZ	157.0	EP			10:52	22.84			0.85
MONM	HN	157.0	ES			10:52	41.21			0.80

February 4 2013		Time: 10:51 59.0 UTC				Magnitude: 2.4 ML				
Lat: 52.748N		Lon: -1.044W				Depth: 2.8 km				
Grid Ref: 464.52 kmE		317.17 kmN				RMS: 0.30 secs				
Locality: LOUGHBOROUGH, LEICS										
Velocity model: Lownet Xnear: 150.0 Xfar: 300.0										
Comment: FELT LOUGHBOROUGH										
Intensity: 2										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
CWF	HZ	17.8	EP			10:52	02.49			-0.04
CWF	HN	17.8	ES			10:52	05.07			-0.03
CWF	HE	17.8	IAML			10:52	05.30	699	0.46	
CWF	HN	17.8	IAML			10:52	05.42	1195	0.22	
LBWR	HZ	85.9	EP			10:52	13.60			0.04
LBWR	HN	85.9	ES			10:52	24.16			-0.02
LBWR	HE	85.9	IAML			10:52	27.49	165	0.22	
LBWR	HN	85.9	IAML			10:52	28.00	185	0.24	
STNC	HZ	87.0	EP			10:52	13.76			0.05
STNC	HE	87.0	ES			10:52	24.51			0.07
STNC	HN	87.0	IAML			10:52	25.03	267	0.32	
STNC	HE	87.0	IAML			10:52	25.64	157	0.36	
WACR	HZ	113.0	EP			10:52	17.34			-0.36
WACR	HN	113.0	IAML			10:52	31.13	122	0.20	
WACR	HE	113.0	IAML			10:52	35.52	87	0.22	
HLM1	HZ	127.0	EP			10:52	19.82			-0.11
HLM1	HE	127.0	ES			10:52	34.73			-0.48
HLM1	HE	127.0	IAML			10:52	34.86	35	0.14	
HLM1	HN	127.0	IAML			10:52	35.38	28	0.12	
FOEL	HZ	146.0	EP			10:52	23.28			0.52
FOEL	HE	146.0	ES			10:52	40.13			0.04
FOEL	HE	146.0	IAML			10:52	41.79	79	0.52	
FOEL	HN	146.0	IAML			10:52	44.67	48	0.42	
SWN1	HZ	147.0	EP			10:52	23.18			0.39
SWN1	HE	147.0	IAML			10:52	43.02	88	0.18	
SWN1	HN	147.0	IAML			10:52	43.23	58	0.26	
MCH1	HZ	157.0	EP			10:52	24.22			-0.05
MCH1	HE	157.0	IAML			10:52	42.96	73	0.28	
MONM	HZ	157.0	EP			10:52	24.32			0.09
MONM	HN	157.0	ES			10:52	42.97			0.32
MONM	HN	157.0	IAML			10:52	43.56	107	0.44	
MONM	HE	157.0	IAML			10:52	43.75	57	0.22	
MCH1	HN	157.0	ES			10:52	42.28			-0.43
MCH1	HN	157.0	IAML			10:52	42.89	69	0.20	

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February 7 2013      Time: 22:41 04.1 UTC      Magnitude: 2.3 ML
Lat: 53.057N         Lon: -4.374W      Depth: 16.7 km
Grid Ref: 240.92 kmE 353.75 kmN      RMS: 0.20 secs
Locality: CAERNARFON BAY,GWYNEDD
Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0
Comment: FELT GWYNEDD      Intensity: 3
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
YLL EZ 16.5 EP C 22:41 08.27 0.20
YRC EZ 25.4 IP D 22:41 09.19 -0.03
WLF1 HZ 25.9 IP C 22:41 09.31 0.02
WLF1 HZ 25.9 AMPG 22:41 09.36 5457 0.06
WLF1 HN 25.9 ES 22:41 12.91 -0.11
WLF1 HZ 25.9 AMSG 22:41 13.08 35013 0.06
WLF1 HE 25.9 IAML 22:41 13.15 3113 0.10
WLF1 HZ 25.9 IAML 22:41 13.17 1707 0.10
WME EZ 38.1 EP C 22:41 11.09 0.02
WME EZ 38.1 AMPG 22:41 11.22 1262 0.09
WME EZ 38.1 AMSG 22:41 16.30 2675 0.06
WPS HZ 39.1 EP C 22:41 11.37 0.16

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TABLE 2 : PHASE DATA

WPS	HE	39.1	ES		22:41	16.10			-0.23	MCH1	HE	149.0	IAML		22:45	37.82	12	0.14	
WPS	HE	39.1	IAML		22:41	16.90	164	0.30		MCH1	HN	149.0	IAML		22:45	37.87	14	0.24	
WPS	HN	39.1	IAML		22:41	17.05	106	0.20		MONM	HZ	171.0	EP	C	22:45	21.38		0.36	
LLW	BZ	53.0	EP	D	22:41	13.21			-0.09	LBWR	HZ	181.0	EP		22:45	22.50		0.27	
LLW	BE	53.0	ES		22:41	19.84			-0.08	KESW	HZ	191.0	EP		22:45	23.03		-0.42	
FOEL	HZ	81.0	EP	C	22:41	17.55			0.00										
FOEL	HZ	81.0	AMPG		22:41	17.60	67	0.06		February 8 2013			Time: 18:04 22.7 UTC			Magnitude: 1.1 ML			
FOEL	HE	81.0	ES		22:41	26.98			-0.25	Lat: 51.681N			Lon: -3.664W			Depth: 3.1 km			
FOEL	HZ	81.0	AMSG		22:41	27.55	821	0.06		Grid Ref: 284.97 kmE			199.39 kmN			RMS: 0.40 secs			
FOEL	HE	81.0	IAML		22:41	28.30	117	0.56		Locality: MAESTEG,BRIDGEND									
FOEL	HN	81.0	IAML		22:41	30.42	75	0.48		Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
LPW	BZ	107.0	EP	D	22:41	21.24			-0.17	Comment: 8KM NORTH OF MAESTEG									
LPW	BE	107.0	ES		22:41	33.80			-0.07	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LPW	BE	107.0	IAML		22:41	34.12	112	0.15		LPW	BZ	55.6	EP		18:04	32.62			0.18
LPW	BN	107.0	IAML		22:41	36.97	106	0.15		LPW	BN	55.6	ES		18:04	40.41			0.83
HLM1	HZ	117.0	EP	D	22:41	23.14			0.15	LPW	BE	55.6	IAML		18:04	40.51	13	0.25	
HLM1	HN	117.0	ES		22:41	37.15			0.56	LPW	BN	55.6	IAML		18:04	40.65	8	0.25	
HLM1	HN	117.0	IAML		22:41	39.09	52	0.18		MCH1	HZ	57.8	EP		18:04	32.62			-0.19
HLM1	HE	117.0	IAML		22:41	39.75	28	0.12		MCH1	HN	57.8	ES		18:04	40.05			-0.17
RSBS	HN	125.0	IAML		22:41	40.89	21	0.16		MCH1	HE	57.8	IAML		18:04	40.41	17	0.24	
RSBS	HE	125.0	IAML		22:41	41.00	29	0.10		MCH1	HN	57.8	IAML		18:04	40.49	14	0.16	
IOMK	HZ	135.0	EP		22:41	25.77			0.21	MONM	HZ	61.9	EP		18:04	33.30			-0.13
IOMK	HE	135.0	ES		22:41	41.43			0.41	MONM	HN	61.9	ES		18:04	41.24			-0.06
IOMK	HE	135.0	IAML		22:41	42.61	36	0.12		MONM	HE	61.9	IAML		18:04	43.59	7	0.30	
IOMK	HN	135.0	IAML		22:41	43.74	28	0.24		MONM	HN	61.9	IAML		18:04	43.90	7	0.28	
STNC	HN	145.0	IAML		22:41	46.41	110	0.34		RSBS	HZ	80.4	EP		18:04	35.91			-0.42
STNC	HE	145.0	IAML		22:41	47.47	102	0.21		RSBS	HE	80.4	ES		18:04	45.49			-0.82
MCH1	HZ	150.0	EP	C	22:41	27.91			0.16	RSBS	HN	80.4	IAML		18:04	45.70	5	0.16	
MCH1	HN	150.0	ES		22:41	44.88			0.10	RSBS	HE	80.4	IAML		18:04	45.77	6	0.10	
MCH1	HN	150.0	IAML		22:41	47.01	27	0.36		HTL	HZ	95.4	EP		18:04	38.93			0.31
MCH1	HE	150.0	IAML		22:41	47.30	28	0.52		HTL	HE	95.4	ES		18:04	50.50			0.22
SPK	EZ	164.0	EP		22:41	28.89			-0.54	HTL	HN	95.4	IAML		18:04	52.19	10	0.40	
SPK	EE	164.0	ES		22:41	47.71			0.05	HTL	HE	95.4	IAML		18:04	52.26	6	0.28	
SPK	EN	164.0	IAML		22:41	51.14	49	0.30		HLM1	HZ	108.0	EP		18:04	40.87			0.31
SPK	EE	164.0	IAML		22:41	51.22	77	0.24		HLM1	HN	108.0	IAML		18:04	59.16	10	0.22	
HPK	HN	208.0	IAML		22:42	05.12	32	0.22		HLM1	HE	108.0	IAML		18:04	59.18	12	0.14	
HPK	HE	208.0	IAML		22:42	06.88	37	0.16											
CWF	HZ	209.0	EP		22:41	34.98			-0.14	February 9 2013			Time: 20:13 55.6 UTC			Magnitude: 1.7 ML			
CWF	HN	209.0	ES		22:41	58.05			0.60	Lat: 53.505N			Lon: -2.436W			Depth: 12.2 km			
CWF	HN	209.0	IAML		22:42	01.20	40	0.28		Grid Ref: 371.09 kmE			401.04 kmN			RMS: 0.20 secs			
CWF	HE	209.0	IAML		22:42	04.00	10	0.30		Locality: LEIGH,GTR MANCHESTER									
EDMD	HZ	253.0	EP		22:41	40.07			-0.49	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
EDMD	HN	253.0	ES		22:42	07.33			0.52	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
EDMD	HE	253.0	IAML		22:42	16.83	22	0.16		LBWR	HZ	48.6	EP		20:14	04.11			-0.01
EDMD	HN	253.0	IAML		22:42	20.40	23	0.22		LBWR	HN	48.6	ES		20:14	10.32			0.00
ESK	HZ	263.0	EP		22:41	41.49			-0.32	LBWR	HE	48.6	IAML		20:14	10.82	45	0.08	
GDLE	HZ	280.0	EP		22:41	43.99			0.09	LBWR	HN	48.6	IAML		20:14	11.19	80	0.22	
GDLE	HN	280.0	ES		22:42	13.26			0.70	HPK	HZ	73.5	EP		20:14	08.11			0.16
GDLE	HN	280.0	IAML		22:42	14.32	28	0.24		HPK	HN	73.5	ES		20:14	16.82			-0.11
GDLE	HE	280.0	IAML		22:42	14.56	18	0.26		HPK	HN	73.5	IAML		20:14	17.24	48	0.24	
										HPK	HE	73.5	IAML		20:14	17.32	50	0.22	
February 7 2013										Time: 22:44 54.5 UTC			Magnitude: 1.9 ML						
Lat: 53.047N										Lon: -4.368W			Depth: 14.0 km						
Grid Ref: 241.28 kmE										352.63 kmN			RMS: 0.20 secs						
Locality: CAERNARFON BAY,GWYNEDD																			
Velocity model: Mid Wales										Xnear: 80.0			Xfar: 200.0						
Comment: FELT GWYNEDD										Intensity: 3									
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	CWF	HE	114.0	ES		20:14	27.46			0.03
YLL	EZ	16.8	EP	C	22:44	58.62			0.40	CWF	HE	114.0	IAML		20:14	29.00	15	0.12	
YRC	EZ	26.6	EP	D	22:44	59.55			-0.04	CWF	HN	114.0	IAML		20:14	29.37	10	0.17	
WLF1	HZ	27.0	EP	C	22:44	59.65			-0.01	HLM1	HZ	114.0	EP		20:14	13.97			-0.07
WLF1	HN	27.0	ES		22:45	03.18			-0.20	HLM1	HN	114.0	ES		20:14	27.38			-0.11
WLF1	HN	27.0	IAML		22:45	03.42	312	0.12		HLM1	HN	114.0	IAML		20:14	28.77	22	0.34	
WLF1	HE	27.0	IAML		22:45	03.49	1119	0.10		HLM1	HE	114.0	IAML		20:14	29.00	28	0.28	
WME	EZ	39.1	EP	C	22:45	01.42			-0.12	WME	EZ	125.0	EP		20:14	15.85			0.32
WME	EZ	39.1	AMPG		22:45	01.59	387	0.14		KESW	HZ	128.0	EP		20:14	16.37			0.29
WME	EZ	39.1	AMSG		22:45	06.51	1131	0.09		WLF1	HZ	133.0	EP		20:14	16.68			0.02
WPS	HZ	40.3	EP		22:45	01.71			0.00	WLF1	HN	133.0	ES		20:14	32.01			0.00
WPS	HN	40.3	IAML		22:45	06.74	47	0.20		WLF1	HE	133.0	IAML		20:14	34.19	15	0.12	
WPS	HE	40.3	IAML		22:45	07.23	82	0.26		WLF1	HN	133.0	IAML		20:14	34.28	10	0.18	
LLW	BZ	52.1	EP	D	22:45	03.53			-0.09	WPS	HZ	138.0	EP		20:14	17.42			0.07
LLW	BE	52.1	ES		22:45	10.11			-0.08	WPS	HN	138.0	ES		20:14	33.30			0.09
FOEL	HZ	80.4	EP	C	22:45	07.90			-0.04	YRC	EZ	145.0	EP		20:14	18.20			-0.24
FOEL	HZ	80.4	AMPG		22:45	07.98	137	0.07		EDMD	HZ	151.0	EP		20:14	18.98			-0.26
FOEL	HE	80.4	ES		22:45	17.36			-0.27	EDMD	HE	151.0	ES		20:14	35.57			-0.90
FOEL	HE	80.4	IAML		22:45	18.00	44	0.20		EDMD	HN	151.0	IAML		20:14	38.16	30	0.28	
FOEL	HN	80.4	IAML		22:45	20.45	41	0.60		EDMD	HE	151.0	IAML		20:14	38.37	19	0.16	
LPW	BZ	106.0	EP	D	22:45	11.79			0.06	MCH1	HZ	172.0	EP		20:14	22.43			0.35
LPW	BN	106.0	ES		22:45	24.04			-0.10	MCH1	HN	172.0	IAML		20:14	43.42	9	0.22	
LPW	BE	106.0	IAML		22:45	26.24	51	0.20		MCH1	HE	172.0	IAML		20:14	44.54	8	0.16	
LPW	BN	106.0	IAML		22:45	26.62	44	0.20											
HLM1	HZ	116.0	EP	C	22:45	13.58			0.24	February 9 2013			Time: 21:50 56.8 UTC			Magnitude: 1.1 ML			
HLM1	HE	116.0	ES		22:45	27.20			0.28	Lat: 51.148N			Lon: -3.246W			Depth: 7.9 km			
HLM1	HE	116.0	IAML		22:45	28.59	11	0.10		Grid Ref: 312.86 kmE			139.54 kmN			RMS: 0.20 secs			
HLM1	HN	116.0	IAML																

TABLE 2 : PHASE DATA

MONM	HZ	82.8	EP	21:51	10.65					0.16	HPK	HN	92.9	ES	10:38	02.53			0.02	
MONM	HN	82.8	ES	21:51	20.43					-0.07	HPK	HE	92.9	IAML	10:38	06.10	26	0.18		
MONM	HN	82.8	IAML	21:51	20.88	11	0.24				HPK	HN	92.9	IAML	10:38	07.20	49	0.22		
MONM	HE	82.8	IAML	21:51	21.66	7	0.30				MCH1	HZ	190.0	EP	10:38	05.24			0.13	
HTL	HZ	88.5	EP	21:51	11.45					0.10	MCH1	HE	190.0	IAML	10:38	30.91	7	0.38		
HTL	HE	88.5	ES	21:51	21.71					-0.28	MCH1	HN	190.0	IAML	10:38	32.05	6	0.50		
HTL	HE	88.5	IAML	21:51	24.58	7	0.21				MONM	HZ	194.0	EP	10:38	06.29			0.63	
HTL	HN	88.5	IAML	21:51	25.54	8	0.24				MONM	HN	194.0	ES	10:38	28.18			0.72	
MCH1	HZ	96.1	EP	21:51	12.47					-0.09	MONM	HN	194.0	IAML	10:38	32.09	7	0.26		
MCH1	HN	96.1	ES	21:51	23.68					-0.39	MONM	HE	194.0	IAML	10:38	32.41	11	0.32		
MCH1	HE	96.1	IAML	21:51	23.91	5	0.14				February 14 2013 Time: 17:40 19.9 UTC Magnitude: 0.9 ML									
MCH1	HN	96.1	IAML	21:51	23.94	6	0.18				Lat: 55.136N Lon: -5.447W Depth: 7.5 km									
LPW	BZ	122.0	EP	21:51	16.91					0.42	Grid Ref: 180.31 kmE 587.84 kmN RMS: 0.40 secs									
LPW	BN	122.0	ES	21:51	31.31					0.43	Locality: NORTH CHANNEL									
LPW	BN	122.0	IAML	21:51	31.98	4	0.16				Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
LPW	BE	122.0	IAML	21:51	32.17	3	0.21				Comment: 30KM WNW BALLANTRAE									
RSBS	HZ	137.0	EP	21:51	18.78					0.02	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
HLM1	HZ	155.0	EP	21:51	21.42					0.15	CLGH	HZ	42.8	EP		17:40	27.55			0.09
HLM1	HE	155.0	ES	21:51	38.91					-0.24	CLGH	HE	42.8	ES		17:40	32.77			-0.18
HLM1	HN	155.0	IAML	21:51	40.93	2	0.32				CLGH	HN	42.8	IAML		17:40	32.86	32	0.06	
HLM1	HE	155.0	IAML	21:51	41.19	3	0.16				CLGH	HE	42.8	IAML		17:40	33.03	60	0.07	
February 9 2013 Time: 21:51 20.5 UTC Magnitude: 1.1 ML											GALL	HZ	55.8	EP		17:40	29.74			0.28
Lat: 51.165N Lon: -3.271W Depth: 4.0 km											GALL	HE	55.8	ES		17:40	35.85			-0.57
Grid Ref: 311.14 kmE 141.47 kmN RMS: 0.30 secs											GALL	HE	55.8	IAML		17:40	36.78	4	0.07	
Locality: WATCHET,SOMERSET											GALL	HN	55.8	IAML		17:40	37.02	4	0.09	
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											IOMK	HE	113.0	ES		17:40	52.00			0.28
Comment: 6KM SE OF WATCHET											IOMK	HE	113.0	IAML		17:40	52.41	3	0.16	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		IOMK	HN	113.0	IAML		17:40	53.16	2	0.12	
OLDB	HZ	74.5	EP	21:51	32.99				-0.11		ESK	HN	144.0	ES		17:40	59.60			-0.09
OLDB	HN	74.5	EP	21:51	42.24				-0.09		ESK	HN	144.0	IAML		17:41	00.97	3	0.26	
MONM	HZ	81.7	ES	21:51	34.48				0.24		ESK	HE	144.0	IAML		17:41	01.00	2	0.27	
MONM	HN	81.7	ES	21:51	44.27				-0.04		KESW	HZ	162.0	EP		17:40	46.37			0.85
MONM	HN	81.7	IAML	21:51	44.73	13	0.24				KESW	HN	162.0	ES		17:41	04.78			0.58
MONM	HE	81.7	IAML	21:51	44.82	7	0.24				KESW	HN	162.0	IAML		17:41	08.98	6	0.78	
HTL	HE	87.1	ES	21:51	45.54				-0.20		KESW	HE	162.0	IAML		17:41	12.19	6	0.72	
HTL	HE	87.1	IAML	21:51	48.11	8	0.40				February 15 2013 Time: 12:35 35.2 UTC Magnitude: 2.2 ML									
HTL	HN	87.1	IAML	21:51	48.33	6	0.24				Lat: 48.332N Lon: -0.755W Depth: 5.7 km									
MCH1	HZ	94.6	EP	21:51	36.38				0.14		Grid Ref: 492.26 kmE -173.50 kmN RMS: 0.40 secs									
MCH1	HN	94.6	ES	21:51	47.45				-0.32		Locality: NORTHWEST FRANCE									
MCH1	HE	94.6	IAML	21:51	47.70	4	0.12				Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0									
MCH1	BN	94.6	IAML	21:51	47.81	5	0.14				Comment: 140KM SE OF JERSEY									
LPW	BZ	119.0	EP	21:51	40.70				0.67		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
HLM1	HE	153.0	ES	21:52	02.78				-0.25		JDC	EZ	135.0	EP		12:35	56.84			-0.13
HLM1	HE	153.0	IAML	21:52	05.03	3	0.20				JDC	EE	135.0	ES		12:36	12.63			-0.26
HLM1	HN	153.0	IAML	21:52	05.77	2	0.19				JDG	EZ	135.0	EP		12:35	56.78			-0.18
February 12 2013 Time: 19:19 07.9 UTC Magnitude: 0.9 ML											JDG	EN	135.0	ES		12:36	12.56			-0.32
Lat: 52.765N Lon: -3.581W Depth: 20.3 km											JRS	EZ	137.0	EP		12:35	57.02			-0.26
Grid Ref: 293.34 kmE 319.81 kmN RMS: 0.10 secs											JRS	EE	137.0	ES		12:36	14.01			0.58
Locality: LLANWDDYN,POWYS											JSA	HZ	141.0	EP		12:35	57.53			-0.31
Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0											JSA	HN	141.0	ES		12:36	14.52			0.12
Comment: 8KM WNW OF LLANWDDYN											JSA	HN	141.0	IAML		12:36	20.31	44	0.36	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		JSA	HE	141.0	IAML		12:36	20.51	34	0.32	
LLW	BZ	10.9	EP	19:19	11.97				0.19		DYA	HZ	328.0	EP		12:36	22.57			0.76
LLW	BN	10.9	ES	19:19	14.47				-0.08		DYA	HE	328.0	IAML		12:37	12.35	7	0.56	
FOEL	HZ	29.1	EP	19:19	14.03				0.18		DYA	HN	328.0	IAML		12:37	12.56	11	0.26	
FOEL	HN	29.1	ES	19:19	17.97				-0.13		February 16 2013 Time: 06:45 42.9 UTC Magnitude: 1.4 ML									
FOEL	HN	29.1	IAML	19:19	18.31	17	0.14				Lat: 52.565N Lon: 0.747W Depth: 9.1 km									
FOEL	HE	29.1	IAML	19:19	18.50	16	0.24				Grid Ref: 586.16 kmE 299.94 kmN RMS: 0.20 secs									
WLF1	HZ	80.0	EP	19:19	21.17				-0.05		Locality: WATTON,NORFOLK									
WLF1	HN	80.0	ES	19:19	30.66				-0.13		Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
WLF1	HN	80.0	IAML	19:19	31.05	4	0.38				Comment: 5KM WEST OF WATTON									
WLF1	HE	80.0	IAML	19:19	31.66	5	0.33				STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
YRC	EZ	85.9	EP	19:19	22.22				0.12		WACR	HZ	19.5	EP		06:45	46.62			-0.15
WPS	HZ	93.7	EP	19:19	23.33				0.05		WACR	HN	19.5	ES		06:45	49.71			0.09
WPS	HE	93.7	ES	19:19	34.32				0.00		WACR	HE	19.5	IAML		06:45	50.19	64	0.12	
MCH1	HN	94.2	ES	19:19	34.42				-0.06		WACR	HN	19.5	IAML		06:45	50.39	74	0.18	
MCH1	HE	94.2	IAML	19:19	35.46	4	0.24				LMK	HN	123.0	ES		06:46	17.12			0.00
MCH1	HN	94.2	IAML	19:19	37.02	4	0.12				LMK	HE	123.0	IAML		06:46	22.68	18	0.30	
RSBS	HZ	120.0	EP	19:19	26.99				-0.30		LMK	HN	123.0	IAML		06:46	23.19	24	0.22	
RSBS	HE	120.0	ES	19:19	41.36				0.14		CWF	HZ	140.0	EP		06:46	05.66			0.44
February 13 2013 Time: 10:37 35.8 UTC Magnitude: 1.5 ML											CWF	HE	140.0	ES		06:46	21.28			-0.25
Lat: 53.204N Lon: -1.023W Depth: 1.2 km											CWF	HN	140.0	IAML		06:46	23.96	5	0.24	
Grid Ref: 465.25 kmE 367.91 kmN RMS: 0.10 secs											CWF	HE	140.0	IAML		06:46	24.08	5	0.20	
Locality: NEW OLLERTON,NOTTS											February 16 2013 Time: 07:02 50.8 UTC Magnitude: 0.8 ML									
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											Lat: 56.049N Lon: -5.628W Depth: 3.6 km									
Comment: C/F,FELT N OLLERTON Intensity: 3											Grid Ref: 174.09 kmE 689.94 kmN RMS: 0.20 secs									
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		Locality: TAYVALLICH,ARGYLL/BUTE									
LBWR	HZ	51.7	EP	10:37	44.93				0.05		Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
LBWR	HN	51.7	ES	10:37	51.47				-0.03		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HN	51.7	IAML	10:37	52.97	62	0.34				LAW	HZ	27.4	EP		07:02	55.56			-0.34
LBWR	HE	51.7	IAML	10:37	54.21	35	0.24				LAW	HN	27.4	ES		07:02	59.63			-0.02
CWF	HZ	55.2	EP	10:37	45.38				-0.02		LAW	HN	27.4	IAML		07:03	00.02	9	0.20	
CWF	HN	55.2	ES	10:37	52.40				0.00		LAW	HE	27.4	IAML		07:03	01.19	9	0.10	
CWF	HN	55.2	IAML	10:37	58.51	8	0.30				PGB1	HZ	76.3	EP		07:03	03.58			-0.15
CWF	HE	55.2	IAML	10:37	59.38	10	0.32				PGB1	HN	76.3	ES		07:03	13.34			0.14
HPK	HZ	92.9	EP	10:37	51.21				-0.03											

TABLE 2 : PHASE DATA

GGB1	HN	76.3	IAML	07:03	14.92	6	0.42			HLM1	HN	57.6	IAML	07:37	34.95	54	0.24				
PGB1	HE	76.3	IAML	07:03	15.10	4	0.19			HLM1	HE	57.6	IAML	07:37	35.30	16	0.18				
EAB	EZ	81.8	EP	07:03	04.64			0.04		MCH1	HZ	64.7	EP	07:37	28.95		0.10				
INVG	HZ	107.0	EP	07:03	08.58			0.09		MCH1	HE	64.7	ES	07:37	36.67		-0.13				
INVG	HN	107.0	ES	07:03	21.45			0.01		MCH1	HN	64.7	IAML	07:37	36.74	34	0.20				
INVG	HE	107.0	IAML	07:03	22.20	3	0.20			MCH1	HE	64.7	IAML	07:37	36.87	33	0.12				
INVG	HN	107.0	IAML	07:03	23.21	3	0.12			FOEL	HZ	65.3	EP	07:37	29.04		0.07				
KPL	HZ	144.0	EP	07:03	14.12			0.15		FOEL	HE	65.3	ES	07:37	36.94		-0.07				
KPL	HE	144.0	ES	07:03	31.44			0.51		FOEL	HN	65.3	IAML	07:37	37.20	8	0.18				
KPL	HE	144.0	IAML	07:03	32.36	3	0.25			FOEL	HE	65.3	IAML	07:37	38.19	7	0.15				
KPL	HN	144.0	IAML	07:03	33.51	2	0.30			RSBS	HZ	86.3	EP	07:37	32.40		-0.02				
KAC	EZ	163.0	EP	07:03	16.97			0.24		RSBS	HN	86.3	ES	07:37	42.86		-0.07				
February 17 2013										February 17 2013											
Time: 02:29 26.5 UTC				Magnitude: 1.0 ML				Time: 10:13 31.4 UTC				Magnitude: 1.7 ML									
Lat: 53.239N				Lon: -2.857W				Lat: 55.371N				Lon: -3.004W									
Grid Ref: 342.81 kmE 371.70 kmN				Depth: 11.3 km				Grid Ref: 336.38 kmE 609.02 kmN				Depth: 4.3 km									
Locality: ELLESMERE PORT,CHESHIRE				RMS: 0.10 secs				Locality: HAWICK,BORDERS				RMS: 0.40 secs									
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										Velocity model: Lownet Xnear: 75.0 Xfar: 150.0											
Comment: C/F,FELT HENSALL										Comment: FELT HAWICK											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
FOEL	HZ	45.1	EP			02:29	34.69			0.12	ESK	HZ	14.1	IP			C	10:13	34.11		-0.23
FOEL	HN	45.1	ES			02:29	40.39			-0.08	ESK	HN	14.1	ES				10:13	36.22		-0.25
FOEL	HE	45.1	IAML			02:29	41.86	6	0.36		ESK	HN	14.1	IAML				10:13	36.40	638	0.18
FOEL	HN	45.1	IAML			02:29	42.23	6	0.27		ESK	HE	14.1	IAML				10:13	36.41	322	0.16
LBWR	HZ	77.6	EP			02:29	39.56			0.05	BHH	SZ	33.8	EP				10:13	38.16		0.52
WME	EZ	98.0	EP			02:29	42.33			-0.05	BHH	SE	33.8	ES				10:13	41.61		-0.59
WLF1	HZ	103.0	EP			02:29	42.96			-0.11	EAU	EZ	59.8	EP				10:13	41.79		-0.02
WLF1	HE	103.0	ES			02:29	55.28			0.11	EDI	HZ	62.6	EP				10:13	43.10		0.90
WLF1	HN	103.0	IAML			02:29	56.27	8	0.12		EDI	HN	62.6	IAML				10:13	54.97	15	0.16
WLF1	HE	103.0	IAML			02:29	57.07	7	0.28		EDI	HE	62.6	IAML				10:13	55.77	17	0.18
HPK	HZ	114.0	EP			02:29	44.69			-0.05	ESY	EZ	65.6	EP				10:13	41.88		-0.83
HPK	HN	114.0	ES			02:29	58.05			0.00	BBO1	SZ	72.3	EP				10:13	43.95		0.24
HPK	HE	114.0	IAML			02:29	59.11	11	0.18		BBO1	SN	72.3	ES				10:13	52.68		-0.02
HPK	HN	114.0	IAML			02:29	59.91	14	0.14		BBO1	SE	72.3	IAML				10:13	55.82	44	0.28
February 19 2013										February 19 2013											
Time: 03:52 39.4 UTC				Magnitude: 2.1 ML				Time: 10:13 31.4 UTC				Magnitude: 1.7 ML									
Lat: 53.684N				Lon: -1.114W				Lat: 55.371N				Lon: -3.004W									
Grid Ref: 458.51 kmE 421.23 kmN				Depth: 1.3 km				Grid Ref: 336.38 kmE 609.02 kmN				Depth: 4.3 km									
Locality: HENSALL,N YORKSHIRE				RMS: 0.40 secs				Locality: HAWICK,BORDERS				RMS: 0.40 secs									
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										Velocity model: Lownet Xnear: 75.0 Xfar: 150.0											
Comment: C/F,FELT HENSALL										Comment: FELT HAWICK											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
HPK	HZ	45.4	EP			03:52	47.27			-0.63	ESK	HZ	14.1	IP			C	10:13	34.11		-0.23
HPK	HN	45.4	ES			03:52	54.50			0.41	ESK	HN	14.1	ES				10:13	36.22		-0.25
HPK	HN	45.4	IAML			03:52	59.08	187	0.30		ESK	HN	14.1	IAML				10:13	36.40	638	0.18
HPK	HE	45.4	IAML			03:52	59.58	131	0.29		ESK	HE	14.1	IAML				10:13	36.41	322	0.16
LBWR	HZ	51.2	EP			03:52	48.92			0.01	BHH	SZ	33.8	EP				10:13	38.16		0.52
LBWR	HE	51.2	ES			03:52	55.73			-0.12	BHH	SE	33.8	ES				10:13	41.61		-0.59
LBWR	HN	51.2	IAML			03:52	56.97	155	0.28		EAU	EZ	59.8	EP				10:13	41.79		-0.02
LBWR	HE	51.2	IAML			03:52	57.58	97	0.25		EDI	HZ	62.6	EP				10:13	43.10		0.90
LMK	HZ	58.0	EP			03:52	50.02			0.10	EDI	HN	62.6	IAML				10:13	54.97	15	0.16
STNC	HZ	98.1	EP			03:52	56.40			0.24	EDI	HE	62.6	IAML				10:13	55.77	17	0.18
WACR	HZ	158.0	EP			03:53	04.90			-0.21	ESY	EZ	65.6	EP				10:13	41.88		-0.83
KESW	HZ	165.0	EP			03:53	06.75			0.66	BBO1	SZ	72.3	EP				10:13	43.95		0.24
KESW	HN	165.0	ES			03:53	25.13			-0.44	BBO1	SN	72.3	ES				10:13	52.68		-0.02
KESW	HN	165.0	IAML			03:53	28.24	21	0.34		BBO1	SE	72.3	IAML				10:13	55.82	44	0.28
KESW	HE	165.0	IAML			03:53	31.13	21	0.41		BBO1	SN	72.3	IAML				10:13	55.84	37	0.22
WME	EZ	214.0	EP			03:53	12.65			0.26	KESW	HZ	87.3	EP				10:13	46.14		0.08
MCH1	HZ	227.0	EP			03:53	14.12			0.11	KESW	HN	87.3	ES				10:13	56.79		0.04
MCH1	HN	227.0	ES			03:53	39.26			0.01	KESW	HE	87.3	IAML				10:13	59.22	24	0.27
MCH1	HN	227.0	IAML			03:53	43.87	25	0.38		KESW	HN	87.3	IAML				10:13	59.80	24	0.22
MCH1	HE	227.0	IAML			03:53	44.23	22	0.42		EDMD	HZ	89.6	EP				10:13	46.61		0.25
February 20 2013										February 20 2013											
Time: 11:41 55.4 UTC				Magnitude: 2.4 ML				Time: 23:57 01.9 UTC				Magnitude: 2.5 ML									
Lat: 48.370N				Lon: -1.960W				Lat: 52.900N				Lon: -1.038W									
Grid Ref: 402.96 kmE -170.02 kmN				Depth: 4.1 km				Grid Ref: 464.70 kmE 334.09 kmN				Depth: 7.9 km									
Locality: NORTHWEST FRANCE				RMS: 0.10 secs				Locality: COTGRAVE,NOTTS				RMS: 0.30 secs									
Velocity model: Lownet Xnear: 200.0 Xfar: 500.0										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											
Comment: 90KM SOUTH OF JERSEY										Comment: FELT NOTTS...											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
JDC	EZ	91.9	EP			11:42	10.79			0.02	CWF	HZ	25.6	EP				23:57	06.75		-0.03
JRS	EE	91.9	ES			11:42	21.86			-0.11	CWF	HN	25.6	ES				23:57	10.30		-0.01
JDG	EZ	91.9	EP			11:42	10.80			0.04	CWF	HE	25.6	IAML				23:57	10.63	504	0.07
JDG	EE	91.9	ES			11:42	22.00			0.05	CWF	HN	25.6	IAML				23:57	10.70	379	0.10
JRS	EZ	91.9	EP			11:42	10.70			-0.07	LAW	HZ	180.0	EP				10:14	00.15		0.55
JSA	HZ	92.3	EP			11:42	10.92			0.10	LAW	HN	180.0	ES				10:14	20.84		0.66
JSA	HE	92.3	ES			11:42	22.03			-0.02	LAW	HE	180.0	IAML				10:14	22.62	9	0.30
JSA	HN	92.3	IAML			11:42	25.49	325	0.16		LAW	HN	180.0	IAML				10:14	23.73	9	0.34
JSA	HE	92.3	IAML			11:42	25.53	228	0.36		CLGH	HZ	200.0	EP				10:14	02.56		0.39
DYA	HE	271.0	IAML			11:43	12.80	10	0.58		February 27 2013										
DYA	HN	271.0	IAML			11:43	15.75	13	0.18		Time: 23:57 01.9 UTC				Magnitude: 2.5 ML						
February 25 2013										February 25 2013											
Time: 07:37 17.8 UTC				Magnitude: 1.4 ML				Time: 23:57 01.9 UTC				Magnitude: 2.5 ML									
Lat: 52.388N				Lon: -3.701W				Lat: 52.900N				Lon: -1.038W									
Grid Ref: 284.25 kmE 278.07 kmN				Depth: 5.8 km				Grid Ref: 464.70 kmE 334.09 kmN				Depth: 7.9 km									
Locality: LLANGURIG,POWYS				RMS: 0.10 secs				Locality: COTGRAVE,NOTTS				RMS: 0.30 secs									
Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											
Comment: FELT NOTTS...										Comment: FELT NOTTS...											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
HLM1	HZ	57.6	EP			07:37	27.84			0.15	CWF	HZ	25.6	EP				23:57	06.75		-0.03
HLM1	HN	57.6	ES			07:37	34.67			-0.14	CWF	HN	25.6	ES				23:57	10.30		-0.01

TABLE 2 : PHASE DATA

LBWR	HZ	72.2	IP	D	23:57	13.83				-0.21	JSA	HN	167.0	IAML	13:17	08.47	43	0.36		
LBWR	HE	72.2	ES		23:57	23.03				0.15	JSA	HE	167.0	IAML	13:17	10.64	33	0.38		
LBWR	HE	72.2	IAML		23:57	26.03	206	0.44			JRS	EZ	172.0	EP	13:16	40.57			0.05	
LBWR	HN	72.2	IAML		23:57	26.14	143	0.11			JRS	EE	172.0	ES	13:17	00.34			0.25	
STNC	HZ	81.2	EP		23:57	15.63				0.22	JDC	EZ	175.0	EP	13:16	41.08			0.19	
STNC	HN	81.2	ES		23:57	25.06				-0.19	JDC	EN	175.0	ES	13:16	59.92			-0.81	
STNC	HN	81.2	IAML		23:57	28.58	336	0.32			DYA	HZ	226.0	EP	13:16	47.27			-0.02	
STNC	HE	81.2	IAML		23:57	29.21	253	0.25			DYA	HE	226.0	IAML	13:17	14.43	14	0.36		
WACR	HZ	114.0	EP		23:57	20.58				0.11	DYA	HN	226.0	IAML	13:17	15.35	21	0.22		
WACR	HE	114.0	ES		23:57	33.88				-0.13	March 8 2013 Time: 23:51 16.0 UTC Magnitude: 0.5 ML									
WACR	HE	114.0	IAML		23:57	36.34	100	0.24			Lat: 56.204N Lon: -4.251W Depth: 5.1 km									
WACR	HN	114.0	IAML		23:57	36.76	133	0.22			Grid Ref: 260.38 kmE 703.54 kmN RMS: 0.10 secs									
HPK	HZ	124.0	IP	D	23:57	22.17				0.16	Locality: CALLANDER,STIRLING									
HPK	HE	124.0	ES		23:57	36.75				0.08	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
HPK	HE	124.0	IAML		23:57	38.11	187	0.20			STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
HPK	HN	124.0	IAML		23:57	38.74	205	0.33			EAB	EZ	5.6	IP	C	23:51	17.63			0.01
HLMI	HZ	132.0	EP		23:57	22.85				-0.28	INVG	HZ	28.0	EP		23:51	21.41			0.12
FOEL	HZ	145.0	EP		23:57	25.25				0.13	INVG	HE	28.0	ES		23:51	25.10			-0.05
STRD	HZ	147.0	IP	C	23:57	25.47				0.22	INVG	HE	28.0	IAML		23:51	25.36	4	0.14	
SWNI	HZ	163.0	EP		23:57	28.31				0.75	INVG	HE	28.0	IAML		23:51	25.88	3	0.51	
MCH1	HZ	167.0	EP		23:57	27.91				-0.21	INVG	HN	28.0	IAML		23:51	25.88	3	0.51	
MONM	HZ	169.0	EP		23:57	28.44				0.13	PGB1	HZ	46.0	EP		23:51	23.93			-0.26
GDLE	HZ	170.0	EP		23:57	27.38				-1.13	PGB1	HN	46.0	ES		23:51	30.33			0.16
WPM1	EZ	196.0	EP		23:57	32.92				1.11	LAWI	HZ	71.5	EP		23:51	28.19			0.06
LPW	BZ	224.0	EP		23:57	35.92				0.75	LAWI	HN	71.5	ES		23:51	36.93			-0.04
KESW	HZ	232.0	EP		23:57	34.81				-1.48	LAWI	HN	71.5	IAML		23:51	40.92	4	0.11	
											LAWI	HE	71.5	IAML		23:51	41.11	8	0.19	
February 28 2013 Time: 00:52 29.3 UTC Magnitude: 1.3 ML																				
Lat: 52.898N Lon: -1.063W Depth: 8.5 km																				
Grid Ref: 463.02 kmE 333.84 kmN RMS: 0.20 secs																				
Locality: COTGRAVE,NOTTS																				
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																				
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		March 10 2013 Time: 21:18 29.3 UTC Magnitude: 1.8 ML									
CWF	HZ	24.2	EP		00:52	33.87			-0.08		Lat: 56.996N Lon: -5.795W Depth: 7.5 km									
CWF	HE	24.2	ES		00:52	37.47			0.12		Grid Ref: 169.53 kmE 795.81 kmN RMS: 0.60 secs									
CWF	HN	24.2	IAML		00:52	37.66	51	0.10			Locality: MALLAIG,HIGHLAND									
CWF	HE	24.2	IAML		00:52	37.74	52	0.07			Velocity model: Lownet Xnear: 150.0 Xfar: 300.0									
LBWR	HZ	71.4	EP		00:52	41.07			-0.20		Comment: FELT MALLAIG Intensity: 2									
LBWR	HE	71.4	ES		00:52	50.09			0.07		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HE	71.4	IAML		00:52	52.83	15	0.10			KPL	HZ	39.2	IP	D	21:18	36.15			-0.05
LBWR	HN	71.4	IAML		00:52	53.27	14	0.09			KPL	HE	39.2	ES		21:18	41.18			-0.08
HPK	HE	124.0	ES		00:53	03.88			0.14		KPL	HE	39.2	IAML		21:18	41.50	44	0.20	
HPK	HE	124.0	IAML		00:53	05.04	14	0.20			KPL	HN	39.2	IAML		21:18	41.91	31	0.20	
HPK	HN	124.0	IAML		00:53	05.57	16	0.30			KAC	EZ	63.5	IP	D	21:18	40.05			0.04
HLMI	HZ	130.0	EP		00:52	50.37			0.26		LAWI	HZ	85.5	EP		21:18	43.14			-0.26
HLMI	HE	130.0	ES		00:53	05.06			-0.25		LAWI	HN	85.5	ES		21:18	52.90			-0.81
HLMI	HE	130.0	IAML		00:53	05.93	3	0.12			LAWI	HE	85.5	IAML		21:18	53.10	47	0.12	
HLMI	HN	130.0	IAML		00:53	06.98	4	0.33			LAWI	HN	85.5	IAML		21:18	53.45	40	0.36	
											MDO	EZ	99.7	EP		21:18	45.74			0.08
											INVG	HZ	125.0	EP		21:18	49.72			0.24
											INVG	HN	125.0	ES		21:19	04.24			0.02
											INVG	HN	125.0	IAML		21:19	05.18	24	0.40	
											INVG	HE	125.0	IAML		21:19	08.13	24	0.14	
March 4 2013 Time: 03:26 04.5 UTC Magnitude: 3.5 ML																				
Lat: 64.514N Lon: -4.213W Depth: 10.0 km																				
Grid Ref: RMS: 0.30 secs																				
Locality: NORWEGIAN SEA																				
Velocity model: North Sea Xnear: 400.0 Xfar: 600.0																				
Comment: 300KM NE OF TORSHAVN																				
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		EAB	EZ	127.0	EP		21:18	50.27			0.46
SOFL	HZ	306.0	EP		03:26	46.79			-0.13		MCD	EZ	167.0	EP		21:18	55.34			-0.14
SOFL	HE	306.0	ES		03:27	17.99			0.08		MCD	EN	167.0	ES		21:19	14.54			-0.07
SOFL	HE	306.0	IAML		03:27	19.39	198	0.55			MCD	EN	167.0	IAML		21:19	17.01	15	0.13	
SOFL	HN	306.0	IAML		03:27	21.37	147	0.45			MCD	EE	167.0	IAML		21:19	17.27	33	0.20	
LRW	HZ	512.0	EP		03:27	13.36			0.71		EDU	EZ	177.0	EP		21:18	58.19			1.33
LRW	HE	512.0	ES		03:28	02.00			-0.41		EDI	HN	200.0	IAML		21:19	25.58	17	0.34	
LRW	HN	512.0	IAML		03:28	04.49	56	0.20			EDI	HE	200.0	IAML		21:19	27.43	15	0.36	
LRW	HE	512.0	IAML		03:28	04.51	43	0.29			BIGH	HZ	201.0	EP		21:18	58.24			-1.50
BIGH	HZ	671.0	EP		03:27	31.97			-0.37		BIGH	HN	201.0	IAML		21:19	27.56	12	0.16	
BIGH	HN	671.0	IAML		03:28	38.30	16	0.26			BIGH	HE	201.0	IAML		21:19	28.50	12	0.22	
BIGH	HE	671.0	IAML		03:28	42.43	12	0.29			DRUM	HZ	202.0	EP		21:18	59.32			-0.51
MCD	EZ	774.0	EP		03:27	45.51			0.37		CLGH	HZ	214.0	EP		21:19	02.96			1.57
KAC	EZ	784.0	EP		03:27	45.95			-0.40		March 15 2013 Time: 10:43 51.0 UTC Magnitude: 3.1 ML									
MDO	EZ	788.0	EP		03:27	46.37			-0.54		Lat: 57.014N Lon: 1.968W Depth: 14.2 km									
KPL	HZ	803.0	EP		03:27	48.03			-0.71		Grid Ref: 640.86 kmE 798.41 kmN RMS: 0.30 secs									
DRUM	HZ	852.0	EP		03:27	54.56			-0.27		Locality: CENTRAL NORTH SEA									
INVG	HZ	901.0	EP		03:28	00.52			-0.39		Velocity model: North Sea Xnear: 400.0 Xfar: 600.0									
LAWI	HZ	922.0	EP		03:28	02.99			-0.50		Comment: 250KM EAST ABERDEEN									
EAB	EZ	927.0	EP		03:28	04.07			-0.14		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
EDI	HZ	959.0	EP		03:28	07.93			-0.14		DRUM	HZ	271.0	EP		10:44	29.34			0.52
ESY	EZ	962.0	EP		03:28	08.54			0.08		DRUM	HN	271.0	ES		10:44	56.43			0.02
ESK	HZ	1026.0	EP		03:28	16.05			-0.40		DRUM	HN	271.0	IAML		10:45	12.96	78	0.42	
EDMD	HZ	1086.0	EP		03:28	23.35			-0.50		DRUM	HE	271.0	IAML		10:45	13.18	78	0.44	
											ESY	EZ	308.0	EP		10:44	33.27			-0.09
											EDU	EZ	309.0	EP		10:44	33.78			0.28
											MCD	EE	321.0	IAML		10:45	24.24	94	0.48	
											MCD	EN	321.0	IAML		10:45	34.21	96	0.72	
											GDLE	HZ	337.0	EP		10:44	37.25			0.20
											GDLE	HE	337.0	IAML		10:45	35.72	90	0.34	
											GDLE	HN	337.0	IAML		10:45	36.87	228	0.38	
March 6 2013 Time: 13:16 13.7 UTC Magnitude: 2.2 ML																				
Lat: 48.405N Lon: -4.113W Depth: 8.2 km																				
Grid Ref: 243.64 kmE -163.98 kmN RMS: 0.40 secs																				
Locality: NORTHWEST FRANCE																				
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0																				
Comment: 165KM SW OF JERSEY																				
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		EDI	HE	340.0	EP		10:44	37.13			-0.13
JSA	HZ	167.0	EP		13:16	39.65			-0.21		EDI	HZ	340.0	EP		10:44	37.26			-0.11
JSA	HN	167.0	ES		13:16	59.49			0.54		EDI	HE	340.0	ES		10:45	11.44			0.23
											EDI	HE	340.0	IAML		10:45	38.27	64	0.58	
											EDI	HN	340.0	IAML		10:45	39.66	70	0.80	
											EDMD	HZ	346.0	EP		10:44	37.64			-0.39
											EDMD	HN	346.0	IAML		10:45	31.58	56	0.28	
											EDMD	HE	346.0	IAML		10:45	32.72	69	0.32	

TABLE 2 : PHASE DATA

EAU	EZ	358.0	EP	10:44	39.42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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TABLE 2 : PHASE DATA

LPW	BZ	98.5	EP	12:58	15.85				-0.09	KESW	HE	84.9	IAML	00:06	19.06	3	0.55								
LPW	BN	98.5	ES	12:58	27.43				0.58	ESK	HZ	114.0	EP	00:06	11.50			-0.34							
LPW	BN	98.5	IAML	12:58	28.89	79	0.20			ESK	HN	114.0	ES	00:06	25.63			0.26							
LPW	BE	98.5	IAML	12:58	29.57	96	0.15			ESK	HN	114.0	IAML	00:06	27.10	1	0.07								
RSBS	HZ	115.0	EP	12:58	18.49				0.06	ESK	HE	114.0	IAML	00:06	27.40	2	0.19								
RSBS	HN	115.0	ES	12:58	30.64				-0.38																
RSBS	HE	115.0	IAML	12:58	33.76	22	0.22			March 28 2013				Time: 20:25 34.3 UTC		Magnitude: 1.6 ML									
RSBS	HN	115.0	IAML	12:58	34.09	29	0.10			Lat: 52.751N				Lon: -2.124W		Depth: 7.5 km									
MCH1	HZ	146.0	EP	12:58	22.65				-0.61	Grid Ref: 391.63 kmE				317.09 kmN		RMS: 0.30 secs									
MCH1	HE	146.0	ES	12:58	40.11				0.97	Locality: PENKRIDGE,STAFFS															
MCH1	HN	146.0	IAML	12:58	40.71	29	0.14			Velocity model: Lownet									Xnear: 100.0	Xfar: 200.0					
MCH1	HE	146.0	IAML	12:58	41.88	32	0.13			STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES					
MONM	HZ	168.0	EP	12:58	26.08				0.08	STNC	HZ	38.3	EP			20:25	41.20			0.11					
MONM	HE	168.0	IAML	12:58	48.13	27	0.12			STNC	HE	38.3	ES			20:25	46.06			-0.01					
MONM	HN	168.0	IAML	12:58	48.97	44	0.15			STNC	HE	38.3	IAML			20:25	46.57	175	0.14						
										STNC	HN	38.3	IAML			20:25	46.64	114	0.21						
March 22 2013										Time: 13:52 21.5 UTC		Magnitude: 3.5 ML													
Lat: 61.616N										Lon: 4.473W		Depth: 6.3 km													
Grid Ref: 742.86 kmE										1320.89 kmN		RMS: 0.40 secs													
Locality: NORWEGIAN COAST																									
Velocity model: Lownet										Xnear: 500.0		Xfar: 1000.0													
Comment: 345KM ENE OF LERWICK																									
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	HLM1	HE	57.4	IAML			20:25	52.06	16	0.13					
BER	HZ	145.0	EP			13:52	44.88			0.20	HLM1	HN	57.4	IAML			20:25	52.91	12	0.09					
BER	HE	145.0	ES			13:53	01.62			0.02	FOEL	HZ	74.1	EP			20:25	46.93		0.24					
MOL	HZ	193.0	EP			13:52	51.20			0.15	FOEL	HE	74.1	ES			20:25	55.50		-0.26					
MOL	HN	193.0	ES			13:53	12.52			-0.11	FOEL	HN	74.1	IAML			20:25	56.83	10	0.38					
LRW	HZ	348.0	EP			13:53	10.43			-0.08	FOEL	HE	74.1	IAML			20:25	59.31	11	0.24					
LRW	HE	348.0	ES			13:53	47.12			0.82	LBWR	HZ	77.2	EP			20:25	47.39		0.24					
BIGH	HZ	582.0	EP			13:53	39.34			-0.34	LBWR	HE	77.2	ES			20:25	56.49		-0.06					
BIGH	HE	582.0	ES			13:54	36.35			-0.40	LBWR	HE	77.2	IAML			20:25	57.15	34	0.10					
BIGH	HE	582.0	IAML			13:54	41.31	15	0.60		LBWR	HN	77.2	IAML			20:25	57.79	30	0.26					
BIGH	HN	582.0	IAML			13:54	41.60	17	0.41		MCH1	HZ	103.0	EP			20:25	50.90		-0.19					
MCD	EE	626.0	ES			13:54	45.50			-0.82	MCH1	HE	103.0	ES			20:26	03.00		-0.37					
MCD	EE	626.0	IAML			13:54	47.37	13	0.35		MCH1	HN	103.0	IAML			20:26	03.18	17	0.16					
MCD	EN	626.0	IAML			13:54	56.03	25	0.82		MCH1	HE	103.0	IAML			20:26	06.85	18	0.24					
DRUM	HZ	657.0	EP			13:53	48.83			-0.24	STRD	HZ	109.0	EP			20:25	52.26		0.29					
DRUM	HE	657.0	ES			13:54	53.18			0.19	STRD	HE	109.0	ES			20:26	05.25		0.36					
DRUM	HN	657.0	IAML			13:54	55.22	34	0.38		STRD	HN	109.0	IAML			20:26	06.19	26	0.17					
DRUM	HE	657.0	IAML			13:54	56.71	22	0.56		STRD	HE	109.0	IAML			20:26	07.26	27	0.22					
March 24 2013										Time: 22:02 33.7 UTC		Magnitude: 2.0 ML													
Lat: 57.715N										Lon: -5.547W		Depth: 7.5 km													
Grid Ref: 188.75 kmE										874.97 kmN		RMS: 0.40 secs													
Locality: GAIRLOCH,HIGHLAND																									
Velocity model: Lownet										Xnear: 100.0		Xfar: 300.0													
Comment: FELT GAIRLOCH...										Intensity: 3															
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	HPK	HE	138.0	IAML			20:26	14.43	45	0.40					
KAC	EZ	28.2	EP			22:02	39.00			0.05	WLF1	HZ	164.0	EP			20:26	00.40		0.37					
KPL	HZ	42.3	EP			22:02	40.88			-0.22	WLF1	HN	164.0	ES			20:26	18.72		-0.11					
KPL	HE	42.3	ES			22:02	46.01			-0.49	WLF1	HN	164.0	IAML			20:26	20.05	11	0.10					
KPL	HN	42.3	IAML			22:02	46.51	42	0.09		WLF1	HE	164.0	IAML			20:26	20.45	8	0.11					
KPL	HE	42.3	IAML			22:02	46.68	83	0.34		March 31 2013											Time: 08:00 17.1 UTC		Magnitude: 0.5 ML	
MDO	EZ	77.1	EP			22:02	46.82			0.25	Lat: 52.981N										Lon: -4.388W		Depth: 10.9 km		
BIGH	HZ	130.0	EP			22:02	54.90			0.32	Grid Ref: 239.70 kmE										345.33 kmN		RMS: 0.20 secs		
BIGH	HE	130.0	ES			22:03	09.63			-0.19	Locality: LLEYN PENINSULA														
BIGH	HN	130.0	IAML			22:03	11.55	98	0.15		Velocity model: LleyN										Xnear: 80.0		Xfar: 200.0		
BIGH	HE	130.0	IAML			22:03	11.67	56	0.20		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES				
MCD	EZ	138.0	EP			22:02	55.64			-0.12	YLL	EZ	22.9	EP			08:00	21.45			0.07				
MCD	EE	138.0	ES			22:03	11.75			-0.12	YRC	EZ	32.5	ES			08:00	26.91			0.13				
MCD	EN	138.0	IAML			22:03	13.85	27	0.30		WLF1	HZ	34.3	EP			08:00	22.74			-0.40				
MCD	EE	138.0	IAML			22:03	14.24	35	0.18		WLF1	HN	34.3	ES			08:00	27.17			-0.08				
MME1	EZ	161.0	EP			22:02	58.50			-0.63	WLF1	HE	34.3	IAML			08:00	27.50	7	0.11					
LAWE	HZ	162.0	EP			22:02	59.21			-0.03	WLF1	HN	34.3	IAML			08:00	27.57	5	0.10					
LAWE	HN	162.0	ES			22:03	18.09			0.20	WME	EZ	46.6	EP			08:00	25.41			0.29				
LAWE	HN	162.0	IAML			22:03	20.75	49	0.14		April 2 2013											Time: 07:34 40.1 UTC		Magnitude: 0.8 ML	
LAWE	HE	162.0	IAML			22:03	21.02	44	0.19		Lat: 55.367N										Lon: -3.398W		Depth: 4.1 km		
INVG	HZ	170.0	EP			22:03	01.17			0.87	Grid Ref: 311.40 kmE										609.00 kmN		RMS: 0.00 secs		
INVG	HN	170.0	ES			22:03	19.86			0.13	Locality: MOFFAT,D & G														
INVG	HE	170.0	IAML			22:03	23.02	13	0.14		Velocity model: Lownet										Xnear: 100.0		Xfar: 200.0		
INVG	HN	170.0	IAML			22:03	23.14	10	0.19		Comment: 4KM NE OF MOFFAT														
EAB	EZ	185.0	EP			22:03	03.11			0.90	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES				
DRUM	HZ	205.0	EP			22:03	04.58			-0.08	ESK	HZ	13.5	EP			07:34	42.87			-0.05				
DRUM	HN	205.0	IAML			22:03	33.27	11	0.17		ESK	HN	13.5	ES			07:34	45.01			0.03				
DRUM	HE	205.0	IAML			22:03	33.61	14	0.19		ESK	HN	13.5	IAML			07:34	45.14	56	0.10					
March 28 2013										Time: 00:05 53.3 UTC		Magnitude: 0.4 ML													
Lat: 54.568N										Lon: -4.418W		Depth: 10.1 km													
Grid Ref: 243.70 kmE										521.90 kmN		RMS: 0.30 secs													
Locality: IRISH SEA																									
Velocity model: Lownet										Xnear: 100.0		Xfar: 200.0													
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	BHH	SE	32.5	ES			07:34	45.14	56	0.10					
GAL1	HZ	38.2	EP			00:06	00.11			-0.02	BHH	SE	32.5	IAML			07:34	51.12	10	0.14					
GAL1	HE	38.2	ES			00:06	05.04			-0.07	BHH	SN	32.5	IAML			07:34	52.00	16	0.28					
GAL1	HE	38.2	IAML			00:06	05.38	2	0.17		KESW	HZ	88.6	EP			07:34	54.98			0.00				
GAL1	HN	38.2	IAML			00:06	05.54	2	0.18		KESW	HE	88.6	IAML			07:35	07.98	4	0.26					
KESW	HZ	84.9	EP			00:06	07.85			0.46	KESW	HN	88.6	IAML			07:35	08.59	3	0.29					
KESW	HN	84.9	ES			00:06	17.35			-0.31	April 4 2013											Time: 18:39 51.1 UTC		Magnitude: 1.1 ML	
KESW	HN	84.9	IAML			00:06	18.06	2	0.62		Lat: 54.507N										Lon: -2.088W		Depth: 8.5 km		
										Grid Ref: 394.30 kmE										512.43 kmN		RMS: 0.40 secs			

TABLE 2 : PHASE DATA

Locality: BOWES,COUNTY DURHAM										MCH1 HZ 34.0 EP 01:58 56.17 0.16											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										MCH1 HE 34.0 ES 01:59 00.38 -0.21											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	MCH1 HE 34.0 IAML 01:59 00.57 32 0.19										
EDMD	HZ	37.0	EP			18:39	58.11			0.46	MCH1 HN 34.0 IAML 01:59 00.63 25 0.07										
EDMD	HN	37.0	ES			18:40	01.98			-0.48	MONM HZ 47.9 EP 01:58 58.56 0.20										
EDMD	HN	37.0	IAML			18:40	02.13	25	0.14		MONM HE 47.9 ES 01:59 04.54 -0.11										
EDMD	HE	37.0	IAML			18:40	02.21	25	0.12		MONM HE 47.9 IAML 01:59 04.63 31 0.24										
KESW	HZ	66.4	EP			18:40	01.94			-0.33	MONM HN 47.9 IAML 01:59 04.89 11 0.12										
ESK	HZ	115.0	EP			18:40	10.10			0.28	RSBS HZ 140.0 EP 01:59 12.91 0.36										
ESK	HN	115.0	ES			18:40	23.71			0.21	RSBS HN 140.0 IAML 01:59 31.08 3 0.18										
ESK	HE	115.0	IAML			18:40	24.90	5	0.36		RSBS HE 140.0 IAML 01:59 31.14 2 0.12										
ESK	HN	115.0	IAML			18:40	25.03	4	0.12												
April 5 2013 Time: 23:49 50.5 UTC Magnitude: 0.5 ML										April 19 2013 Time: 18:21 00.0 UTC Magnitude: 0.7 ML											
Lat: 55.865N Lon: -4.471W Depth: 7.0 km										Lat: 54.433N Lon: -2.887W Depth: 4.9 km											
Grid Ref: 245.39 kmE 666.29 kmN RMS: 0.10 secs										Grid Ref: 342.47 kmE 504.55 kmN RMS: 0.10 secs											
Locality: PAISLEY,RENFREWSHIRE										Locality: KENTMERE,CUMBRIA											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
PGB1	HZ	6.1	EP			23:49	52.37			-0.02	KESW	HZ	22.3	EP			18:21	05.47			-0.03
PGB1	HN	6.1	ES			23:49	53.71			-0.04	KESW	HN	22.3	ES			18:21	09.59			0.05
PGB1	HE	6.1	IAML			23:49	53.83	68	0.14		KESW	HE	22.3	IAML			18:21	09.98	9	0.20	
PGB1	HN	6.1	IAML			23:49	53.84	83	0.12		KESW	HN	22.3	IAML			18:21	10.02	5	0.23	
EAB	EZ	36.9	EP			23:49	57.34			0.14	SPK	EZ	39.0	EP			18:21	07.33			-0.12
INVG	HZ	68.0	EP			23:50	02.00			-0.01	SPK	EN	39.0	ES			18:21	12.94			0.02
INVG	HE	68.0	ES			23:50	10.26			-0.12	EDMD	HZ	74.4	EP			18:21	12.59			0.27
INVG	HE	68.0	IAML			23:50	10.50	2	0.18		EDMD	HN	74.4	ES			18:21	21.15			-0.19
INVG	HN	68.0	IAML			23:50	10.94	1	0.06		EDMD	HE	74.4	IAML			18:21	22.39	11	0.12	
LAWE	HZ	72.6	EP			23:50	02.97			0.27	EDMD	HN	74.4	IAML			18:21	22.40	8	0.16	
LAWE	HE	72.6	ES			23:50	11.39			-0.19	April 20 2013 Time: 11:32 08.6 UTC Magnitude: 1.3 ML										
LAWE	HN	72.6	IAML			23:50	11.77	3	0.18		Lat: 52.564N Lon: -1.889W Depth: 8.0 km										
LAWE	HE	72.6	IAML			23:50	11.91	3	0.15		Grid Ref: 407.52 kmE 296.29 kmN RMS: 0.50 secs										
GAL1	HZ	112.0	EP			23:50	08.81			-0.04	Locality: WALSALL,WEST MIDLANDS										
April 6 2013 Time: 17:50 43.1 UTC Magnitude: 0.3 ML										Velocity model: Lownet Xnear: 75.0 Xfar: 150.0											
Lat: 55.372N Lon: -3.377W Depth: 4.7 km										STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES											
Grid Ref: 312.74 kmE 609.53 kmN RMS: 0.10 secs										CWF HZ 43.9 EP 11:32 16.35 0.04											
Locality: MOFFAT,D & G										CWF HE 43.9 ES 11:32 21.13 -0.79											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										CWF HN 43.9 IAML 11:32 21.67 15 0.13											
Comment: 5KM NE OF MOFFAT										CWF HE 43.9 IAML 11:32 21.77 10 0.08											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	HLM1	HZ	67.5	EP			11:32	19.55			-0.46
ESK	HZ	12.5	EP			17:50	45.70			-0.10	HLM1	HE	67.5	ES			11:32	27.72			-0.60
ESK	HN	12.5	ES			17:50	47.83			0.08	HLM1	HE	67.5	IAML			11:32	28.06	24	0.12	
ESK	HN	12.5	IAML			17:50	48.00	24	0.16		HLM1	HN	67.5	IAML			11:32	28.13	27	0.14	
ESK	HE	12.5	IAML			17:50	48.07	12	0.15		STRD	HZ	89.6	EP			11:32	23.74			0.34
BHH	SZ	32.7	EP			17:50	49.03			-0.15	STRD	HN	89.6	ES			11:32	34.30			0.11
BHH	SE	32.7	ES			17:50	53.56			-0.04	STRD	HE	89.6	IAML			11:32	34.81	15	0.10	
KESW	HZ	88.9	EP			17:50	58.22			0.21	STRD	HN	89.6	IAML			11:32	35.01	20	0.14	
KESW	HE	88.9	IAML			17:51	10.78	1	0.22		LBWR	HZ	93.9	EP			11:32	24.98			0.89
KESW	HN	88.9	IAML			17:51	11.25	1	0.27		LBWR	HN	93.9	ES			11:32	36.23			0.85
April 7 2013 Time: 08:08 12.1 UTC Magnitude: 1.2 ML										LBWR HE 93.9 IAML 11:32 37.27 13 0.10											
Lat: 51.691N Lon: -3.766W Depth: 9.2 km										LBWR HN 93.9 IAML 11:32 39.96 13 0.12											
Grid Ref: 277.95 kmE 200.67 kmN RMS: 0.30 secs										MCH1 HZ 98.5 EP 11:32 24.92 0.14											
Locality: NEATH,NEATH PORT TALBOT										MCH1 HE 98.5 ES 11:32 36.46 -0.11											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										MCH1 HN 98.5 IAML 11:32 40.12 13 0.12											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	MCH1	HE	98.5	IAML			11:32	41.14	13	0.10	
MCH1	HZ	62.9	EP			08:08	22.84			-0.02	MONM	HZ	102.0	EP			11:32	25.65			0.33
MCH1	HE	62.9	ES			08:08	30.69			-0.01	MONM	HN	102.0	ES			11:32	38.28			0.78
MCH1	HN	62.9	IAML			08:08	31.06	19	0.22		MONM	HE	102.0	IAML			11:32	40.83	10	0.12	
MCH1	HE	62.9	IAML			08:08	31.42	16	0.15		MONM	HN	102.0	IAML			11:32	41.57	10	0.23	
MONM	HZ	68.4	EP			08:08	23.65			-0.04	OLDB	HZ	110.0	EP			11:32	26.88			0.32
MONM	HE	68.4	ES			08:08	32.20			0.07	April 25 2013 Time: 21:40 09.0 UTC Magnitude: 0.6 ML										
MONM	HN	68.4	IAML			08:08	32.60	17	0.29		Lat: 53.454N Lon: -4.250W Depth: 17.4 km										
MONM	HE	68.4	IAML			08:08	32.77	15	0.12		Grid Ref: 250.62 kmE 397.63 kmN RMS: 0.00 secs										
RSBS	HZ	73.5	EP			08:08	24.75			0.25	Locality: ANGLESEY,NORTH WALES										
RSBS	HN	73.5	ES			08:08	33.35			-0.18	Velocity model: Llleyn Xnear: 80.0 Xfar: 200.0										
RSBS	HN	73.5	IAML			08:08	33.76	6	0.16		Comment: OFFSHORE LOCATION										
RSBS	HE	73.5	IAML			08:08	33.76	9	0.20		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
HTL	HZ	92.3	EP			08:08	27.44			0.22	WME	EZ	7.3	EP			21:40	12.20			0.03
HLM1	HZ	110.0	EP			08:08	29.20			-0.65	WPS	HZ	17.6	EP			21:40	13.18			0.07
HLM1	HE	110.0	ES			08:08	43.15			0.37	WPS	HN	17.6	ES			21:40	15.88			0.00
HLM1	HN	110.0	IAML			08:08	45.13	11	0.20		WPS	HN	17.6	IAML			21:40	16.31	5	0.10	
HLM1	HE	110.0	IAML			08:08	45.14	10	0.26		WPS	HE	17.6	IAML			21:40	16.31	6	0.09	
DYA	HZ	140.0	EP			08:08	34.46			0.36	WLF1	HZ	20.8	EP			21:40	13.48			-0.02
DYA	HN	140.0	ES			08:08	49.59			-0.55	WLF1	HN	20.8	ES			21:40	16.48			-0.06
DYA	HE	140.0	IAML			08:08	50.88	7	0.14		WLF1	HN	20.8	IAML			21:40	16.80	23	0.09	
DYA	HN	140.0	IAML			08:08	51.14	15	0.12		WLF1	HE	20.8	IAML			21:40	17.07	23	0.15	
April 10 2013 Time: 01:58 49.7 UTC Magnitude: 1.0 ML										YRC EZ 31.3 EP 21:40 14.94 0.02											
Lat: 52.269N Lon: -2.773W Depth: 2.5 km										WIM EZ 82.0 ES 21:40 31.79 -0.03											
Grid Ref: 347.26 kmE 263.75 kmN RMS: 0.20 secs										April 26 2013 Time: 19:42 12.0 UTC Magnitude: 1.1 ML											
Locality: YARPOLE,HEREFORDSHIRE										Lat: 56.361N Lon: -4.175W Depth: 2.7 km											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										Grid Ref: 265.64 kmE 720.86 kmN RMS: 0.20 secs											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Locality: COMRIE,PERTH/KINROSS										
HLM1	HZ	28.6	EP			01:58	55.04			-0.11	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										
HLM1	HE	28.6	ES			01:58	59.03			-0.06	Comment: 10KM WEST OF COMRIE										
HLM1	HE	28.6	IAML			01:58	59.26	14	0.14		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
HLM1	HN	28.6	IAML			01:58	59.33	14	0.10		INVG	HZ	10.9	IP			C 19:42	14.49			0.08
										INVG HE 10.9 ES 19:42 15.96 -0.18											

TABLE 2 : PHASE DATA

IMG	HE	10.9	IAML	19:42	16.05	77	0.16							MONM	HE	26.3	IAML	05:20	00.35	26	0.11			
INVG	HN	10.9	IAML	19:42	16.27	49	0.12							HLM1	HZ	49.5	EP	05:20	00.19				-0.17	
EAB	EZ	21.7	EP	19:42	16.50			0.26						HLM1	HE	49.5	ES	05:20	06.70				0.07	
EAB	EZ	21.7	ES	19:42	19.24			-0.06						HLM1	HE	49.5	IAML	05:20	06.96	8	0.24			
LAWE	HZ	76.6	EP	19:42	24.90			-0.22						HLM1	HN	49.5	IAML	05:20	08.04	4	0.12			
LAWE	HN	76.6	ES	19:42	34.53			-0.13						RSBS	HZ	134.0	EP	05:20	13.50				0.26	
LAWE	HN	76.6	IAML	19:42	37.63	8	0.17							RSBS	HN	134.0	ES	05:20	28.21				-0.70	
LAWE	HE	76.6	IAML	19:42	37.69	10	0.14							RSBS	HN	134.0	IAML	05:20	31.04	3	0.07			
KPL	HZ	141.0	EP	19:42	35.02			0.00						RSBS	HE	134.0	IAML	05:20	31.04	4	0.07			
KPL	HE	141.0	ES	19:42	52.09			0.30																
KPL	HE	141.0	IAML	19:42	52.98	7	0.39							May 5 2013				Time: 16:07	45.1	UTC		Magnitude: 1.8	ML	
KPL	HN	141.0	IAML	19:42	54.02	3	0.25							Lat: 50.392N				Lon: -4.618W				Depth: 4.5	km	
KAC	EZ	144.0	EP	19:42	35.92			0.49						Grid Ref: 213.94 kmE				58.02 kmN				RMS: 0.30	secs	
														Locality: LOSTWITHIEL,CORNWALL										
April 28 2013				Time: 02:54	24.1	UTC								Velocity model: Lownet				Xnear: 150.0				Xfar: 200.0		
				Lat: 55.235N										Comment: FELT PAR & ST NEOT								Intensity: 2		
				Grid Ref: 309.39 kmE										STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	
				Locality: JOHNSTONEBRIDGE,D & G										SBD	BZ	19.9	EP		16:07	49.05			0.05	
				Velocity model: Lownet										SBD	BN	19.9	ES		16:07	51.45			-0.39	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES				SBD	BE	19.9	IAML		16:07	51.54	1072	0.10			
ESK	HZ	16.6	IP	C	02:54	27.36			-0.10				SBD	BN	19.9	IAML		16:07	51.59	586	0.19			
ESK	HE	16.6	ES		02:54	29.89			-0.01				DYA	HZ	49.0	EP		16:07	53.92				0.10	
ESK	HE	16.6	IAML		02:54	30.04	23	0.24					DYA	HN	49.0	ES		16:07	59.83				-0.34	
ESK	HN	16.6	IAML		02:54	30.66	11	0.21					DYA	HN	49.0	IAML		16:08	00.07	72	0.16			
BHH	SZ	20.6	EP		02:54	28.03			-0.09				DYA	HE	49.0	IAML		16:08	00.11	43	0.12			
BHH	SE	20.6	ES		02:54	31.16			0.11				CCA1	HZ	49.1	IP	C	16:07	54.18				0.36	
BHH	SE	20.6	IAML		02:54	31.28	27	0.17					CCA1	HN	49.1	ES		16:07	59.80				-0.37	
BHH	SN	20.6	IAML		02:54	31.30	25	0.14					CCA1	HE	49.1	IAML		16:08	00.81	61	0.05			
EDI	HE	78.0	IAML		02:54	47.46	2	0.22					CCA1	HN	49.1	IAML		16:08	01.02	56	0.11			
EDI	HN	78.0	ES		02:54	47.48			0.45				HTL	HZ	67.6	IP	C	16:07	57.25				0.59	
EDI	HN	78.0	IAML		02:54	48.01	5	0.33					HTL	HE	67.6	ES		16:08	05.10				0.00	
													HTL	HN	67.6	IAML		16:08	05.98	51	0.16			
													HTL	HE	67.6	IAML		16:08	06.47	36	0.11			
April 28 2013				Time: 17:56	10.9	UTC								May 8 2013				Time: 00:58	42.9	UTC		Magnitude: 0.9	ML	
				Lat: 55.239N										Lat: 51.915N				Lon: -4.133W				Depth: 12.9	km	
				Grid Ref: 309.34 kmE										Grid Ref: 253.31 kmE				226.25 kmN				RMS: 0.30	secs	
				Locality: JOHNSTONEBRIDGE,D & G										Locality: BRECHFA,CARMARTHENSHIRE										
				Velocity model: Lownet										Velocity model: Lownet				Xnear: 100.0				Xfar: 200.0		
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES				STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		
ESK	HZ	16.5	IP	C	17:56	14.15			-0.07				MCH1	HZ	78.5	EP		00:58	55.71			-0.27		
ESK	HN	16.5	ES		17:56	16.64			0.00				MCH1	HE	78.5	ES		00:59	05.03			-0.51		
ESK	HE	16.5	IAML		17:56	16.78	42	0.10					MCH1	HE	78.5	IAML		00:59	05.51	5	0.10			
ESK	HN	16.5	IAML		17:56	17.46	21	0.22					MCH1	HN	78.5	IAML		00:59	05.63	6	0.22			
BHH	SZ	20.9	EP		17:56	15.00			0.03				MONM	HZ	91.9	EP		00:58	58.34			0.31		
BHH	SN	20.9	ES		17:56	17.97			0.04				MONM	HE	91.9	ES		00:59	09.53			0.44		
BHH	SE	20.9	IAML		17:56	18.07	46	0.18					MONM	HN	91.9	IAML		00:59	10.65	7	0.21			
BHH	SN	20.9	IAML		17:56	18.11	48	0.12					MONM	HE	91.9	IAML		00:59	11.88	5	0.36			
EBL	EZ	64.1	EP		17:56	21.91			-0.09				HTL	HZ	105.0	EP		00:59	00.04				0.07	
KESW	HZ	75.5	EP		17:56	23.58			-0.12				HTL	HE	105.0	ES		00:59	12.28				-0.15	
EDI	HN	77.6	ES		17:56	34.03			0.40				HTL	HE	105.0	IAML		00:59	14.08	4	0.19			
EDI	HN	77.6	IAML		17:56	34.58	6	0.18					HTL	HN	105.0	IAML		00:59	15.44	4	0.28			
EDI	HE	77.6	IAML		17:56	34.66	4	0.17					FOEL	HZ	126.0	EP		00:59	03.15				0.19	
EDMD	HE	104.0	ES		17:56	41.81			1.15															
EDMD	HE	104.0	IAML		17:56	43.20	24	0.14																
EDMD	HN	104.0	IAML		17:56	43.51	24	0.20																
April 29 2013				Time: 05:33	24.9	UTC								May 9 2013				Time: 20:05	54.1	UTC		Magnitude: 1.3	ML	
				Lat: 52.743N										Lat: 57.580N				Lon: -5.408W				Depth: 2.4	km	
				Grid Ref: 362.54 kmE										Grid Ref: 196.27 kmE				859.53 kmN				RMS: 0.30	secs	
				Locality: TELFORD,SHROPSHIRE										Locality: TORRIDON,HIGHLAND										
				Velocity model: Lownet										Velocity model: Lownet				Xnear: 100.0				Xfar: 200.0		
				Comment: 9KM NW OF TELFORD										Comment: 7KM NE OF TORRIDON										
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES				STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES		
HLM1	HZ	33.3	EP		05:33	30.97			-0.08				KAC	EZ	11.1	IP	C	20:05	56.54			-0.02		
HLM1	HE	33.3	ES		05:33	35.47			-0.10				KPL	HZ	30.6	EP		20:05	59.91			0.10		
HLM1	HE	33.3	IAML		05:33	36.19	24	0.32					KPL	HE	30.6	ES		20:06	03.67			-0.35		
HLM1	HN	33.3	IAML		05:33	36.44	125	0.03					KPL	HN	30.6	IAML		20:06	03.74	17	0.26			
CWF	HN	84.2	ES		05:33	49.39			-0.12				KPL	HE	30.6	IAML		20:06	03.87	33	0.24			
MCH1	HZ	88.3	EP		05:33	40.19			0.45				MDO	EZ	64.5	EP		20:06	05.24			-0.20		
MCH1	HN	88.3	ES		05:33	50.15			-0.44				MCD	EZ	129.0	EP		20:06	15.81			0.42		
MCH1	HN	88.3	IAML		05:33	51.08	5	0.22					MCD	EE	129.0	ES		20:06	30.78			-0.19		
MCH1	HE	88.3	IAML		05:33	52.42	3	0.20					MCD	EE	129.0	IAML		20:06	32.69	21	0.28			
MONM	HE	102.0	ES		05:33	54.55			0.31				MCD	EN	129.0	IAML		20:06	32.77	17	0.34			
MONM	HE	102.0	IAML		05:33	55.91	3	0.33					BIGH	HZ	135.0	EP		20:06	16.77				0.52	
MONM	HN	102.0	IAML		05:33	56.58	4	0.63					BIGH	HE	135.0	ES		20:06	32.01				-0.44	
													BIGH	HN	135.0	IAML		20:06	34.20	9	0.20			
													BIGH	HE	135.0	IAML		20:06	34.21	11	0.12			
May 1 2013				Time: 05:19	51.8	UTC								LAWE	HZ	147.0	EP		20:06	18.41				0.41
				Lat: 52.076N										LAWE	HE	147.0	ES		20:06	35.71				0.23
				Grid Ref: 344.56 kmE										LAWE	HE	147.0	IAML		20:06	38.19	7	0.22		
				Locality: HEREFORD,HEREFORDSHIRE										LAWE	HN	147.0	IAML		20:06	39.01	7	0.22		
				Velocity model: Lownet										INVG	HZ	153.0	EP		20:06	19.35				0.49

TABLE 2 : PHASE DATA

Comment: 7KM NW OF GRASMERE											Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Comment: 11KM ENE ACHARACLE											
KESW	HZ	9.6	IP		D	02:26	26.94			-0.22	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
KESW	HE	9.6	ES			02:26	29.18			0.13	LAW	HZ	59.3	EP			06:58	03.10			0.04	
KESW	HE	9.6	IAML			02:26	29.38	31	0.32		LAW	HE	59.3	ES			06:58	09.86			-0.55	
KESW	HN	9.6	IAML			02:26	29.44	18	0.23		LAW	HE	59.3	IAML			06:58	10.07	27	0.22		
EDMD	HZ	82.4	EP			02:26	38.21			0.02	LAW	HN	59.3	IAML			06:58	10.26	23	0.10		
EDMD	HN	82.4	ES			02:26	48.12			-0.01	KPL	HZ	62.4	EP			06:58	03.68			0.15	
EDMD	HN	82.4	IAML			02:26	48.73	5	0.12		KPL	HE	62.4	ES			06:58	10.84			-0.37	
EDMD	HE	82.4	IAML			02:26	48.80	5	0.44		KPL	HN	62.4	IAML			06:58	14.65	25	0.16		
ESK	HZ	90.8	EP			02:26	39.76			0.21	KPL	HE	62.4	IAML			06:58	14.81	23	0.16		
ESK	HN	90.8	ES			02:26	50.37			-0.12	KAC	EZ	82.4	EP			06:58	06.86			0.20	
ESK	HE	90.8	IAML			02:26	51.35	3	0.30		EAB	EZ	103.0	EP			06:58	10.17			0.38	
ESK	HN	90.8	IAML			02:26	52.35	2	0.15		INVG	HZ	104.0	EP			06:58	09.96			-0.08	
											INVG	HN	104.0	ES			06:58	22.27			-0.21	
											INVG	HE	104.0	IAML			06:58	24.14	7	0.11		
											INVG	HN	104.0	IAML			06:58	24.32	12	0.10		
											MDO	EZ	106.0	EP			06:58	10.34			0.02	
											RRR	SE	121.0	ES			06:58	26.72			-0.14	
											PGB1	HZ	128.0	EP			06:58	14.59			0.85	
											RRH	SZ	143.0	EP			06:58	15.96			0.23	
May 15 2013 Time: 06:43 00.7 UTC Magnitude: 1.4 ML																						
Lat: 57.269N Lon: -4.758W											Depth: 7.5 km											
Grid Ref: 233.71 kmE 823.16 kmN											RMS: 0.40 secs											
Locality: CANNICH,HIGHLAND																						
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																						
Comment: 8KM SOUTH OF CANNICH																						
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	May 18 2013 Time: 19:18 02.8 UTC Magnitude: 2.9 ML											
MDO	EZ	30.5	EP			06:43	06.25			-0.11	Lat: 56.776N Lon: -5.715W Depth: 10.4 km											
KAC	EZ	41.4	EP			06:43	08.11			0.11	Grid Ref: 173.05 kmE 771.08 kmN RMS: 0.30 secs											
KAC	EZ	41.4	ES			06:43	13.27			-0.06	Locality: ACHARACLE,HIGHLAND											
KPL	HZ	54.5	EP			06:43	10.14			0.14	Velocity model: Lownet Xnear: 100.0 Xfar: 225.0											
KPL	HN	54.5	ES			06:43	16.45			-0.33	Comment: FELT ACHARACLE... Intensity: 3											
KPL	HN	54.5	IAML			06:43	17.12	16	0.27		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
KPL	HE	54.5	IAML			06:43	22.14	7	0.13		LAW	HZ	60.6	EP			19:18	13.29			0.23	
INVG	HZ	103.0	EP			06:43	17.44			-0.19	LAW	HN	60.6	ES			19:18	20.38			-0.18	
INVG	HE	103.0	ES			06:43	29.22			-0.76	LAW	HE	60.6	IAML			19:18	20.73	980	0.27		
INVG	HN	103.0	IAML			06:43	32.62	11	0.28		LAW	HN	60.6	IAML			19:18	21.25	609	0.17		
INVG	HE	103.0	IAML			06:43	32.72	13	0.18		KPL	HZ	62.9	EP			19:18	13.35			-0.03	
LAW	HZ	119.0	EP			06:43	19.83			-0.20	KPL	HE	62.9	ES			19:18	20.78			-0.34	
LAW	HN	119.0	ES			06:43	34.83			0.70	KPL	HN	62.9	IAML			19:18	24.79	376	0.09		
LAW	HE	119.0	IAML			06:43	37.40	10	0.16		KPL	HE	62.9	IAML			19:18	24.90	503	0.11		
LAW	HN	119.0	IAML			06:43	38.19	9	0.27		KAC	EZ	84.4	EP			19:18	16.76			0.01	
EAB	EZ	123.0	EP			06:43	21.47			0.79	EAB	EZ	107.0	EP			19:18	20.22			-0.07	
DRUM	HZ	143.0	EP			06:43	24.10			0.54	INVG	HZ	110.0	IP		C	19:18	20.92			0.23	
DRUM	HE	143.0	ES			06:43	40.77			0.52	INVG	HN	110.0	ES			19:18	33.98			0.22	
DRUM	HE	143.0	IAML			06:43	43.73	9	0.23		INVG	HE	110.0	IAML			19:18	36.41	357	0.13		
DRUM	HN	143.0	IAML			06:43	43.93	20	0.34		INVG	HN	110.0	IAML			19:18	35.67	387	0.14		
May 15 2013 Time: 17:43 48.6 UTC Magnitude: 2.8 ML											MDO											
Lat: 57.668N Lon: -5.581W											RRR											
Grid Ref: 186.45 kmE 869.85 kmN											RRR											
Locality: GAIRLOCH,HIGHLAND											PGB1											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											PGB1											
Comment: FELT GAIRLOCH... Intensity: 3											PGB1											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	PGB1											
RRR	SZ	25.0	IP		C	17:43	53.49			0.14	RRH											
RRR	SE	25.0	ES			17:43	56.54			-0.26	MCD											
KAC	EZ	25.3	EP			17:43	53.63			0.20	RSC											
KAC	EZ	25.3	ES			17:43	56.73			-0.21	EDI											
KPL	HZ	36.9	EP			17:43	55.21			0.03	EDI											
KPL	HN	36.9	ES			17:43	59.79			-0.18	EDI											
KPL	HN	36.9	IAML			17:44	00.53	428	0.15		CLGH											
KPL	HE	36.9	IAML			17:44	00.55	872	0.49		CLGH											
RRH	SZ	71.5	IP		C	17:44	00.71			0.14	CLGH											
MDO	EZ	77.2	IP		C	17:44	01.78			0.27	CLGH											
RSC	SZ	79.6	IP		D	17:44	01.78			-0.03	CLGH											
MCD	EZ	139.0	IP		C	17:44	10.93			0.01	DRUM											
MCD	EE	139.0	ES			17:44	26.71			-0.48	DRUM											
MCD	EN	139.0	IAML			17:44	29.34	136	0.20		DRUM											
MCD	EE	139.0	IAML			17:44	29.66	245	0.20		DRUM											
LAW	HZ	157.0	EP			17:44	13.43			-0.01	ESY											
LAW	HE	157.0	ES			17:44	31.54			-0.01	IDGL											
LAW	HN	157.0	IAML			17:44	35.05	386	0.22		IDGL											
LAW	HE	157.0	IAML			17:44	35.19	279	0.17		IDGL											
INVG	HZ	167.0	EP			17:44	14.80			-0.02	GAL1											
INVG	HN	167.0	ES			17:44	34.49			0.55	ESK											
INVG	HE	167.0	IAML			17:44	37.40	244	0.49		KESW											
INVG	HN	167.0	IAML			17:44	38.05	161	0.31		WIM											
EAB	EZ	181.0	EP			17:44	17.51			0.87												
DRUM	HZ	205.0	EP			17:44	19.27			-0.27	May 27 2013 Time: 16:04 34.2 UTC Magnitude: 1.1 ML											
DRUM	HE	205.0	IAML			17:44	47.38	66	0.32		Lat: 51.880N Lon: -2.373W											
DRUM	HN	205.0	IAML			17:44	47.57	72	0.31		Grid Ref: 374.33 kmE 220.27 kmN											
PGB1	HZ	217.0	EP			17:44	21.53			0.40	Locality: HUNTLEY,GLOUCESTERSHIRE											
ESK	HZ	300.0	EP			17:44	31.41			-0.05	Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0											
GAL1	HZ	317.0	EP			17:44	33.26			-0.25	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
LRW	HZ	374.0	EP			17:44	39.95			-0.74	STRD	HZ	18.6	EP			16:04	37.66			-0.24	
KESW	HZ	376.0	EP			17:44	41.00			0.05	STRD	HE	18.6	ES			16:04	40.61			0.05	
IOMK	HZ	385.0	EP			17:44	41.57			-0.46	STRD	HN	18.6	IAML			16:04	40.73	108	0.10		
EDMD	HZ	387.0	EP			17:44	42.22			-0.11	STRD	HE	18.6	IAML			16:04	40.78	99	0.06		
											MONM	HZ	30.1	EP			16:04	39.77			-0.06	
											MONM	HN	30.1	ES			16:04	44.14			0.23	
											MONM	HN	30.1	IAML			16:04	44.22	66	0.12		
											MONM	HE	30.1	IAML			16:04	44.24	23	0.10		
											MCH1	HZ	44.9	EP			16:04	42.22			-0.15	
May 18 2013 Time: 06:57 53.0 UTC Magnitude: 1.4 ML																						
Lat: 56.779N Lon: -5.614W											Depth: 8.5 km											
Grid Ref: 179.24 kmE 771.08 kmN											RMS: 0.30 secs											
Locality: ACHARACLE,HIGHLAND																						

TABLE 2 : PHASE DATA

MCH1	HE	44.9	ES			16:04	48.44			0.14	Locality: LLEYN PENINSULA											
MCH1	HE	44.9	IAML			16:04	48.59	23	0.16		Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0											
MCH1	HN	44.9	IAML			16:04	48.61	29	0.12		Comment: FELT BRYNCROES...											
HLM1	HZ	79.0	EP			16:04	47.25			-0.45	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
HLM1	HN	79.0	ES			16:04	57.45			-0.07	YRC	EZ	42.3	EP			C	03:20	46.84		0.06	
HLM1	HE	79.0	IAML			16:04	57.90	6	0.13		YRC	EZ	42.3	ES				03:20	51.80		0.06	
HLM1	HN	79.0	IAML			16:04	58.43	5	0.12		YLL	EZ	46.2	EP				03:20	47.49		0.08	
CWF	HZ	120.0	EP			16:04	54.55			0.55	WLF1	HZ	50.1	EP			C	03:20	48.01		-0.04	
CWF	HN	120.0	IAML			16:05	09.95	3	0.17		WLF1	HZ	50.1	AMPG				03:20	48.14	780	0.11	
CWF	HE	120.0	IAML			16:05	09.98	4	0.12		WLF1	HN	50.1	ES				03:20	53.64		-0.24	
											WLF1	HZ	50.1	AMSG				03:20	53.76	713	0.15	
											WLF1	HE	50.1	IAML				03:20	54.28	51	0.20	
											WLF1	HN	50.1	IAML				03:20	58.51	54	0.17	
											WPS	HZ	59.7	EP			C	03:20	49.85			0.25
											WPS	HZ	59.7	AMPG				03:20	49.95	68	0.10	
											WPS	HZ	59.7	AMSG				03:20	56.75	269	0.07	
											WPS	HE	59.7	IAML				03:20	58.19	20	0.24	
											WPS	HN	59.7	IAML				03:20	59.31	29	0.19	
											WME	EZ	63.6	IP			C	03:20	50.08			-0.18
											LLW	BZ	70.1	EP			D	03:20	51.47			0.15
											LLW	BE	70.1	IAML				03:20	59.99	64	0.36	
											LLW	BN	70.1	IAML				03:21	00.17	76	0.18	
											FOEL	HZ	101.0	EP			D	03:20	56.24			0.08
											FOEL	HZ	101.0	AMPG				03:20	56.42	42	0.15	
											FOEL	HN	101.0	ES				03:21	07.57			0.07
											FOEL	HZ	101.0	AMSG				03:21	07.72	144	0.08	
											FOEL	HE	101.0	IAML				03:21	08.68	23	0.22	
											FOEL	HN	101.0	IAML				03:21	09.16	22	0.10	
											RSBS	HZ	103.0	EP			C	03:20	56.14			-0.27
											RSBS	HZ	103.0	AMPG				03:20	56.37	86	0.12	
											RSBS	HN	103.0	ES				03:21	08.03			0.10
											RSBS	HZ	103.0	AMSG				03:21	08.38	286	0.06	
											HLM1	HZ	130.0	EP			D	03:20	59.82			-0.70
											HLM1	HE	130.0	AMSG				03:21	00.66	82	0.10	
											HLM1	HE	130.0	AMSG				03:21	00.66	76	0.11	
											WIM	EZ	141.0	EP			C	03:21	02.42			0.12
											MCH1	HZ	152.0	EP			D	03:21	04.12			0.29
											MCH1	HE	152.0	AMSG				03:21	22.33	540	0.09	
											MCH1	HE	152.0	IAML				03:21	23.36	18	0.17	
											MCH1	HN	152.0	IAML				03:21	24.42	26	0.16	
											MONM	HZ	174.0	EP			D	03:21	07.39			0.86
											KESW	HZ	218.0	EP			C	03:21	11.98			-0.07
											May 29 2013 Time: 17:49 27.8 UTC Magnitude: 1.5 ML											
											Lat: 57.578N Lon: -5.433W Depth: 2.5 km											
											Grid Ref: 194.77 kmE 859.38 kmN RMS: 0.40 secs											
											Locality: TORRIDON,HIGHLAND											
											Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											
											Comment: 7KM EAST OF TORRIDON											
											STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
											KAC	EZ	11.9	EP			17:49	30.05			-0.27	
											KPL	HZ	29.7	EP			17:49	33.61			0.31	
											KPL	HN	29.7	ES			17:49	36.91			-0.41	
											KPL	HN	29.7	IAML			17:49	37.47	18	0.07		
											KPL	HE	29.7	IAML			17:49	37.51	24	0.10		
											RRR	SZ	38.3	EP			17:49	34.93			0.16	
											RRR	SN	38.3	ES			17:49	39.47			-0.39	
											RRR	SE	38.3	IAML			17:49	40.61	43	0.30		
											RRR	SN	38.3	IAML			17:49	40.71	47	0.28		
											MDO	EZ	65.9	EP			17:49	38.80			-0.48	
											RRH	SZ	83.9	EP			17:49	42.34			0.33	
											RSC	SZ	87.2	EP			17:49	42.51			-0.01	
											MCD	EZ	130.0	EP			17:49	49.43			0.18	
											BIGH	HZ	136.0	EP			17:49	50.79			0.76	
											LAWE	HZ	147.0	EP			17:49	51.85			0.25	
											LAWE	HN	147.0	ES			17:50	09.69			0.72	
											LAWE	HN	147.0	IAML			17:50	11.49	19	0.28		
											LAWE	HE	147.0	IAML			17:50	11.68	25	0.24		
											INVG	HZ	153.0	EP			17:49	52.93			0.36	
											INVG	HE	153.0	ES			17:50	10.39			-0.27	
											INVG	HE	153.0	IAML			17:50	11.74	12	0.33		
											INVG	HN	153.0	IAML			17:50	12.45	7	0.15		
											EAB	EZ	168.0	EP			17:49	55.39			0.66	
											May 29 2013 Time: 18:33 43.4 UTC Magnitude: 1.4 ML											
											Lat: 57.569N Lon: -5.418W Depth: 2.5 km											
											Grid Ref: 195.61 kmE 858.34 kmN RMS: 0.50 secs											
											Locality: TORRIDON,HIGHLAND											
											Velocity model: Lownet Xnear: 100.0 Xfar: 200.0											
											Comment: 7KM EAST OF TORRIDON											
											STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
											KAC	EZ	10.6	EP			18:33	45.64			-0.03	
											KAC	EZ	10.6	ES			18:33	46.88			-0.47	
											KPL	HZ	29.2	EP			18:33	49.23			0.44	
											KPL	HN	29.2	ES			18:33	52.14			-0.60	
											KPL	HE	29.2	IAML			18:33	53.20	23	0.10		
											KPL	HN	29.2	IAML			18:33	53.58	16	0.18		
											RRR	SZ	39.6	EP			18:33	50.59			0.01	
											RRR	SN	39.6	ES			18:33	55.37			-0.46	
											May 29 2013 Time: 03:20 39.5 UTC Magnitude: 1.7 ML											
											Lat: 52.879N Lon: -4.705W Depth: 9.9 km											
											Grid Ref: 218.00 kmE 334.74 kmN RMS: 0.20 secs											

TABLE 2 : PHASE DATA

RRR	SN	39.6	IAML	18:33	56.17	46	0.18			STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES									
RRR	SE	39.6	IAML	18:33	56.27	46	0.26			JQE	EZ	107.0	EP			18:34	49.85			0.05									
MDO	EZ	64.8	EP	18:33	54.43			-0.27		JRS	EZ	110.0	EP			18:34	50.29			0.00									
RRH	SZ	85.1	EP	18:33	58.12			0.34		JRS	EN	110.0	ES			18:35	03.61			-0.03									
RSC	SZ	88.1	EP	18:33	58.21			-0.03		JLP	EZ	113.0	EP			18:34	50.89			0.04									
MCD	EZ	129.0	IP	C	18:34	05.11		0.41		JSA	HZ	115.0	EP			18:34	51.21			0.14									
BIGH	HZ	136.0	EP		18:34	06.04		0.39		JSA	HN	115.0	ES			18:35	05.03			0.03									
LAWE	HZ	146.0	EP		18:34	07.91		0.88		JSA	HN	115.0	IAML			18:35	06.94	11	0.16										
LAWE	HE	146.0	ES		18:34	25.08		0.79		JSA	HE	115.0	IAML			18:35	08.32	10	0.26										
LAWE	HN	146.0	IAML		18:34	27.19	18	0.30		JVM	EZ	119.0	EP			18:34	51.42			-0.22									
LAWE	HE	146.0	IAML		18:34	27.37	24	0.24		DYA	HN	296.0	ES			18:35	46.47			0.00									
INVG	HZ	152.0	EP		18:34	08.51		0.55		DYA	HN	296.0	IAML			18:35	58.45	5	0.32										
INVG	HN	152.0	ES		18:34	25.86		-0.05		DYA	HE	296.0	IAML			18:35	59.11	7	0.92										
INVG	HE	152.0	IAML		18:34	27.42	10	0.34																					
INVG	HN	152.0	IAML		18:34	28.15	7	0.18																					
EAB	EZ	167.0	EP		18:34	11.06		0.94																					
May 30 2013										Time: 22:06 28.2 UTC										Magnitude: 0.8 ML									
Lat: 52.892N										Lon: -4.726W										Depth: 11.4 km									
Grid Ref: 216.64 kmE										336.24 kmN										RMS: 0.20 secs									
Locality: LLEYN PENINSULA										Velocity model: Lownet										Xnear: 150.0									
Xfar: 300.0										Comment: FELT SCALASAIG										Intensity: 2									
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES								
YRC	EZ	41.1	EP			22:06	35.54			0.17	LAWE	HZ	48.3	EP			02:57	05.28			-0.25								
YLL	EZ	46.4	EP			22:06	36.37			0.14	LAWE	HN	48.3	ES			02:57	11.19			-0.44								
WLF1	HZ	49.4	EP			22:06	36.63			-0.07	LAWE	HN	48.3	IAML			02:57	11.72	52	0.26									
WLF1	HE	49.4	ES			22:06	42.22			-0.26	LAWE	HE	48.3	IAML			02:57	11.73	33	0.26									
WLF1	HE	49.4	IAML			22:06	44.64	8	0.08		PGB1	HZ	108.0	EP			02:57	15.30			0.44								
WLF1	HN	49.4	IAML			22:06	46.94	8	0.20		PGB1	HE	108.0	ES			02:57	27.97			0.20								
WPS	HZ	58.6	EP			22:06	38.47			0.28	PGB1	HN	108.0	IAML			02:57	30.26	16	0.12									
WPS	HN	58.6	ES			22:06	44.89			-0.09	PGB1	HE	108.0	IAML			02:57	30.32	20	0.32									
WME	EZ	62.9	EP			22:06	38.84			-0.03	EAB	EZ	112.0	EP			02:57	15.64			0.23								
LLW	BZ	71.6	EP			22:06	40.33			0.11	CLGH	HZ	115.0	EP			02:57	16.10			0.21								
LLW	BE	71.6	ES			22:06	48.42			0.04	CLGH	HE	115.0	ES			02:57	29.29			-0.27								
FOEL	HZ	103.0	EP			22:06	45.11			0.08	CLGH	HN	115.0	IAML			02:57	30.96	27	0.14									
FOEL	HE	103.0	ES			22:06	56.45			-0.02	CLGH	HE	115.0	IAML			02:57	31.37	24	0.14									
RSBS	HZ	105.0	EP			22:06	45.00			-0.29	INVG	HZ	134.0	EP			02:57	18.53			-0.18								
RSBS	HN	105.0	ES			22:06	57.04			0.13	INVG	HN	134.0	ES			02:57	34.54			0.11								
HLM1	HZ	132.0	EP			22:06	48.99			-0.47	INVG	HE	134.0	IAML			02:57	36.50	14	0.14									
HLM1	HN	132.0	ES			22:07	03.98			0.07	INVG	HN	134.0	IAML			02:57	36.96	18	0.16									
HLM1	HN	132.0	IAML			22:07	06.06	3	0.42		KPL	HZ	139.0	EP			02:57	19.68			0.25								
HLM1	HE	132.0	IAML			22:07	07.21	2	0.35		KPL	HE	139.0	ES			02:57	35.91			0.23								
May 31 2013										Time: 06:22 26.8 UTC										Magnitude: 1.4 ML									
Lat: 52.881N										Lon: -4.710W										Depth: 9.5 km									
Grid Ref: 217.67 kmE										334.98 kmN										RMS: 0.20 secs									
Locality: LLEYN PENINSULA										Velocity model: Llleyn										Xnear: 100.0									
Xfar: 200.0										Comment: FELT BRYNCROES...										Intensity: 2									
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES								
YRC	EZ	42.1	EP			06:22	34.12			0.07	LAWE	HZ	48.3	EP			02:57	05.28			-0.25								
YLL	EZ	46.2	EP			06:22	34.97			0.23	LAWE	HN	48.3	ES			02:57	11.19			-0.44								
WLF1	HZ	50.0	EP	C		06:22	35.26			-0.08	LAWE	HN	48.3	IAML			02:57	11.72	52	0.26									
WLF1	HZ	50.0	AMPG			06:22	35.39	137	0.12		LAWE	HE	48.3	IAML			02:57	11.73	33	0.26									
WLF1	HE	50.0	ES			06:22	40.81			-0.34	PGB1	HZ	108.0	EP			02:57	15.30			0.44								
WLF1	HZ	50.0	AMSG			06:22	41.12	692	0.07		PGB1	HE	108.0	ES			02:57	27.97			0.20								
WLF1	HE	50.0	AMSG			06:22	41.14	422	0.07		PGB1	HN	108.0	IAML			02:57	30.26	16	0.12									
WLF1	HT	50.0	AMSG			06:22	41.15	426	0.06		PGB1	HE	108.0	IAML			02:57	30.32	20	0.32									
WLF1	HE	50.0	IAML			06:22	41.60	30	0.18		EAB	EZ	112.0	EP			02:57	15.64			0.23								
WLF1	HN	50.0	IAML			06:22	45.41	29	0.12		CLGH	HZ	115.0	EP			02:57	16.10			0.21								
WPS	HZ	59.5	EP	D		06:22	37.18			0.30	CLGH	HE	115.0	ES			02:57	29.29			-0.27								
WPS	HE	59.5	ES			06:22	43.76			0.02	CLGH	HN	115.0	IAML			02:57	30.96	27	0.14									
WME	EZ	63.5	EP			06:22	37.33			-0.22	CLGH	HE	115.0	IAML			02:57	31.37	24	0.14									
LLW	BZ	70.4	EP	C		06:22	38.87			0.17	INVG	HZ	134.0	EP			02:57	18.53			-0.18								
LLW	BN	70.4	ES			06:22	46.75			-0.04	INVG	HN	134.0	ES			02:57	34.54			0.11								
FOEL	HZ	102.0	EP	D		06:22	43.64			0.07	INVG	HE	134.0	IAML			02:57	36.50	14	0.14									
FOEL	HE	102.0	ES			06:22	55.02			0.05	INVG	HN	134.0	IAML			02:57	36.96	18	0.16									
FOEL	HE	102.0	IAML			06:22	56.50	14	0.36		KPL	HZ	139.0	EP			02:57	19.68			0.25								
FOEL	HN	102.0	IAML			06:22	57.44	12	0.30		KPL	HE	139.0	ES			02:57	35.91			0.23								
RSBS	HZ	103.0	EP	C		06:22	43.55			-0.26	KPL	HE	139.0	IAML			02:57	38.28	8	0.20									
RSBS	HE	103.0	ES			06:22	55.44			0.06	KPL	HN	139.0	IAML			02:57	41.36	4	0.30									
RSBS	HN	103.0	IAML			06:22	59.22	6	0.08		KAC	EZ	162.0	EP			02:57	22.27			-0.47								
RSBS	HE	103.0	IAML			06:23	00.08	9	0.06		GAL1	HZ	166.0	EP			02:57	22.93			-0.26								
HLM1	HZ	130.0	EP	D		06:22	47.79			-0.15	GAL1	HN	166.0	ES			02:57	42.28			0.09								
HLM1	HN	130.0	ES			06:23	02.16			-0.15	GAL1	HE	166.0	IAML			02:57	44.49	4	0.20									
HLM1	HE	130.0	IAML			06:23	04.49	6	0.09		GAL1	HN	166.0	IAML			02:57	45.33	2	0.34									
HLM1	HN	130.0	IAML			06:23	04.54	11	0.36																				
WIM	EZ	141.0	EP			06:22	49.84			0.24																			
MCH1	HZ	152.0	EP	C		06:22	51.39			0.12																			
MCH1	HE	152.0	IAML			06:23	10.23	5	0.14																				
MCH1	HN	152.0	IAML			06:23	10.56	6	0.19																				
May 31 2013										Time: 18:34 32.0 UTC										Magnitude: 1.7 ML									
Lat: 48.765N										Lon: -0.739W										Depth: 3.2 km									
Grid Ref: 492.66 kmE										-125.35 kmN										RMS: 0.10 secs									
Locality: NORTHWEST FRANCE										Velocity model: Lownet										Xnear: 500.0									
Xfar: 1000.0										Comment: 100KM SE OF JERSEY										Intensity: 2									
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES								
KPL	HZ	40.9	EP			20:21	46.95			0.05	KPL	HZ	40.9	EP			20:21	46.95			0.05								
KPL	HE	40.9	ES			20:21	51.95			-0.20	KPL	HE	40.9	ES			20:21	51.95			-0.20								
KPL	HN	40.9	IAML			20:21	52.23	16	0.12		KPL	HN	40.9	IAML			20:21	52.23	16	0.12									

TABLE 2 : PHASE DATA

KAC	HE	40.9	IAML		20:21	52.31	23	0.24		KESW	HN	180.0	IAML	03:52	44.25	16	0.40
LAW	EZ	65.9	IP	D	20:21	50.86		0.05		KESW	HE	180.0	IAML	03:52	44.75	16	0.42
LAW	HZ	85.6	EP		20:21	53.98		0.13		MONM	HN	224.0	IAML	03:52	59.53	15	0.32
LAW	HN	85.6	ES		20:22	03.86		-0.32									
LAW	HE	85.6	IAML		20:22	03.93	24	0.12		June 26 2013				Time: 19:59	38.2	UTC	Magnitude: 0.9 ML
LAW	HN	85.6	IAML		20:22	04.46	19	0.12		Lat: 51.708N				Lon: -3.137W			Depth: 12.5 km
INV	HZ	127.0	EP		20:22	00.46		0.21		Grid Ref: 321.45 kmE				201.69	kmN		RMS: 0.10 secs
INV	HN	127.0	ES		20:22	15.20		-0.04		Locality: BRYNITHEL, BLAENAU GWENT							
INV	HN	127.0	IAML		20:22	16.03	8	0.11		Velocity model: Mid Wales				Xnear: 80.0		Xfar: 200.0	
INV	HE	127.0	IAML		20:22	16.29	9	0.18		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS
EAB	EZ	129.0	EP		20:22	00.88		0.39		MONM	HZ	27.2	IP		C	19:59	43.65
EDU	EZ	180.0	EP		20:22	07.69		0.03		MONM	HE	27.2	ES			19:59	47.61
										MONM	HE	27.2	IAML			19:59	47.76
										MONM	HN	27.2	IAML			19:59	47.82
										MCH1	HZ	33.6	IP		C	19:59	44.42
										MCH1	HE	33.6	ES			19:59	49.05
										MCH1	HN	33.6	IAML			19:59	49.09
										MCH1	HE	33.6	IAML			19:59	49.13
										STRD	HZ	67.7	EP			19:59	49.59
										HLM1	HZ	91.8	EP			19:59	53.39
										HLM1	HE	91.8	ES			20:00	04.17
										HLM1	HE	91.8	IAML			20:00	04.45
										HLM1	HN	91.8	IAML			20:00	06.92
										RSBS	HN	114.0	ES			20:00	09.91
										RSBS	HN	114.0	IAML			20:00	10.97
										RSBS	HE	114.0	IAML			20:00	11.98
										June 26 2013				Time: 22:28	01.5	UTC	Magnitude: 2.7 ML
										Lat: 52.879N				Lon: -4.719W			Depth: 8.6 km
										Grid Ref: 217.05 kmE				334.78	kmN		RMS: 0.30 secs
										Locality: LLEYN PENINSULA							
										Velocity model: LleyN				Xnear: 80.0		Xfar: 200.0	
										Comment: FELT GWYNEDD							Intensity: 3
										STAT	CO	DIST	PHAS	WT	P	HrMn	SECS
										YRC	EZ	42.5	IP		C	22:28	09.04
										YLL	EZ	46.9	IP		C	22:28	09.86
										WLF1	HZ	50.5	IP		C	22:28	10.23
										WLF1	HE	50.5	ES			22:28	15.77
										WLF1	HN	50.5	IAML			22:28	20.34
										WLF1	HE	50.5	IAML			22:28	21.11
										WME	EZ	64.0	IP		C	22:28	12.20
										LLW	BZ	71.0	EP		D	22:28	13.57
										LLW	BN	71.0	ES			22:28	21.63
										FOEL	HZ	102.0	EP		D	22:28	18.41
										FOEL	HN	102.0	ES			22:28	29.73
										FOEL	HE	102.0	IAML			22:28	31.15
										FOEL	HN	102.0	IAML			22:28	32.21
										RSBS	HZ	103.0	EP		C	22:28	18.30
										RSBS	HN	103.0	ES			22:28	30.15
										RSBS	HN	103.0	IAML			22:28	32.41
										RSBS	HE	103.0	IAML			22:28	32.79
										DSB	BZ	118.0	EP		D	22:28	20.94
										DSB	BN	118.0	ES			22:28	34.14
										HLM1	HZ	131.0	EP			22:28	22.88
										HLM1	HN	131.0	IAML			22:28	40.44
										HLM1	HE	131.0	IAML			22:28	40.47
										WIM	EZ	141.0	EP			22:28	24.32
										IWEX	BZ	150.0	EP			22:28	25.06
										IWEX	BN	150.0	ES			22:28	42.42
										MCH1	HZ	153.0	EP			22:28	26.00
										MCH1	HN	153.0	ES			22:28	43.93
										MCH1	HE	153.0	IAML			22:28	45.45
										MCH1	HN	153.0	IAML			22:28	45.98
										IOMK	HZ	154.0	EP			22:28	26.16
										STNC	HZ	170.0	EP		D	22:28	28.84
										MONM	HZ	174.0	EP		C	22:28	29.49
										MONM	HE	174.0	IAML			22:28	51.60
										MONM	HN	174.0	IAML			22:28	51.69
										STRD	HZ	213.0	EP		C	22:28	34.14
										STRD	HN	213.0	ES			22:28	57.26
										STRD	HN	213.0	IAML			22:29	05.06
										STRD	HE	213.0	IAML			22:29	09.33
										WACR	HZ	361.0	EP		D	22:28	52.77
																	0.61
										June 26 2013				Time: 22:28	29.3	UTC	Magnitude: 2.4 ML
										Lat: 52.877N				Lon: -4.699W			Depth: 8.4 km
										Grid Ref: 218.39 kmE				334.51	kmN		RMS: 0.40 secs
										Locality: LLEYN PENINSULA							
										Velocity model: LleyN				Xnear: 80.0		Xfar: 200.0	
										Comment: FELT GWYNEDD							Intensity: 3
										STAT	CO	DIST	PHAS	WT	P	HrMn	SECS
										YRC	EZ	42.4	EP			22:28	36.41
										YRC	EZ	42.4	ES			22:28	41.44
										YLL	EZ	46.0	EP			22:28	37.13
										YLL	EZ	46.0	ES			22:28	42.74
										WLF1	HZ	50.1	EP			22:28	37.32
										WLF1	HN	50.1	ES			22:28	43.48
										WLF1	HE	50.1	IAML			22:28	44.07
										WLF1	HN	50.1	IAML			22:28	47.71
																	0.07

TABLE 2 : PHASE DATA

WME	EZ	63.6	EP	22:28	40.23			0.21		DYA	HN	94.8	IAML	12:13	36.05	33	0.21				
LLW	BZ	69.7	EP	22:28	41.05			0.01		SBD	BZ	98.2	EP	12:13	23.87			0.72			
LLW	BN	69.7	ES	22:28	48.89			-0.12		SBD	BZ	98.2	ES	12:13	34.83			-0.07			
FOEL	HZ	101.0	EP	22:28	46.42			0.21		HTL	HZ	146.0	EP	12:13	31.04			0.89			
FOEL	HE	101.0	ES	22:28	57.10			-0.60		JSA	HZ	182.0	EP	12:13	35.25			0.21			
FOEL	HE	101.0	IAML	22:28	58.04	147	0.20			JSA	HE	182.0	ES	12:13	54.87			-0.61			
FOEL	HN	101.0	IAML	22:28	59.61	178	0.37			JSA	HN	182.0	IAML	12:13	56.81	15	0.21				
RSBS	HZ	103.0	EP	22:28	47.13			0.63		JSA	HE	182.0	IAML	12:13	57.27	14	0.14				
RSBS	HN	103.0	ES	22:28	57.65			-0.54		JLP	EZ	185.0	EP	12:13	35.01			-0.39			
RSBS	HN	103.0	IAML	22:28	58.89	71	0.13			July 1 2013 Time: 23:58 35.4 UTC Magnitude: 0.6 ML											
RSBS	HE	103.0	IAML	22:28	59.99	87	0.17			Lat: 52.880N Lon: -4.733W Depth: 8.2 km											
HLM1	HZ	129.0	EP	22:28	51.00			0.43		Grid Ref: 216.12 kmE 334.93 kmN RMS: 0.20 secs											
HLM1	HN	129.0	ES	22:29	05.56			0.54		Locality: LLEYN PENINSULA											
HLM1	HE	129.0	IAML	22:29	07.59	81	0.31			Velocity model: LleyN Xnear: 80.0 Xfar: 200.0											
HLM1	HN	129.0	IAML	22:29	07.89	105	0.21			Comment: FELT ABERDARON Intensity: 2											
WIM	EZ	141.0	ES	22:29	08.77			0.63		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
MCH1	HN	152.0	ES	22:29	11.07			0.33		YRC	EZ	42.6	EP			23:58	42.75			0.07	
MCH1	HE	152.0	IAML	22:29	12.30	92	0.17			YRC	EZ	42.6	ES			23:58	47.67			0.03	
MCH1	HN	152.0	IAML	22:29	12.68	115	0.27			WLF1	HZ	50.8	EP			23:58	43.99			-0.04	
IOMK	HZ	154.0	EP	22:28	53.95			-0.43		WLF1	HE	50.8	ES			23:58	49.76			-0.15	
IOMK	HE	154.0	ES	22:29	11.26			-0.16		WLF1	HE	50.8	IAML			23:58	50.11	5	0.14		
June 26 2013 Time: 22:30 28.1 UTC Magnitude: 1.2 ML										WLF1	HN	50.8	IAML			23:58	52.91	4	0.10		
Lat: 52.879N Lon: -4.705W Depth: 7.9 km										LLW	BZ	72.0	EP			23:58	47.56			0.05	
Grid Ref: 218.00 kmE 334.74 kmN RMS: 0.30 secs										LLW	BN	72.0	ES			23:58	55.65			-0.11	
Locality: LLEYN PENINSULA										RSBS	HZ	103.0	EP			23:58	52.27			-0.17	
Velocity model: LleyN Xnear: 80.0 Xfar: 200.0										RSBS	HN	103.0	ES			23:59	03.96			-0.08	
Comment: FELT BRYNCROES Intensity: 2										RSBS	HN	103.0	IAML			23:59	06.22	1	0.07		
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	RSBS	HE	103.0	IAML			23:59	06.85	2	0.08	
YRC	EZ	42.3	EP			22:30	35.40			0.08	HLM1	HZ	131.0	EP			23:58	57.50			0.68
YRC	EZ	42.3	ES			22:30	40.46			0.26	MCH1	HZ	153.0	EP			23:59	00.42			0.29
WLF1	HZ	50.1	EP			22:30	36.47			-0.14	IOMK	HZ	154.0	EP			23:59	00.53			0.33
WLF1	HE	50.1	ES			22:30	42.37			-0.01	July 2 2013 Time: 21:44 15.3 UTC Magnitude: 1.3 ML										
WLF1	HE	50.1	IAML			22:30	42.89	20	0.23		Lat: 50.135N Lon: -5.137W Depth: 2.7 km										
WLF1	HN	50.1	IAML			22:30	44.36	13	0.11		Grid Ref: 175.85 kmE 30.89 kmN RMS: 0.30 secs										
WME	EZ	63.6	EP			22:30	38.63			-0.21	Locality: FALMOUTH,CORNWALL										
LLW	BZ	70.1	EP			22:30	39.95			0.04	Velocity model: LowNet Xnear: 500.0 Xfar: 1000.0										
LLW	BN	70.1	ES			22:30	47.85			-0.08	Comment: FELT FALMOUTH... Intensity: 3										
FOEL	HZ	101.0	EP			22:30	44.91			-0.15	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
FOEL	HE	101.0	ES			22:30	56.15			-0.42	CCA1	HZ	8.6	IP		C	21:44	17.21			-0.08
FOEL	HE	101.0	IAML			22:30	57.64	8	0.39		CCA1	HE	8.6	ES			21:44	18.60			-0.13
FOEL	HN	101.0	IAML			22:30	58.32	15	0.81		CCA1	HN	8.6	IAML			21:44	18.94	147	0.10	
RSBS	HZ	103.0	EP			22:30	45.28			-0.03	CCA1	HE	8.6	IAML			21:44	19.00	308	0.07	
RSBS	HN	103.0	ES			22:30	56.92			-0.08	DYA	HZ	92.2	EP			21:44	30.96			0.10
HLM1	HZ	130.0	EP			22:30	50.21			0.79	DYA	HN	92.2	ES			21:44	41.86			-0.33
HLM1	HN	130.0	ES			22:31	04.68			0.78	DYA	HN	92.2	IAML			21:44	43.48	25	0.22	
HLM1	HE	130.0	IAML			22:31	06.70	4	0.16		DYA	HE	92.2	IAML			21:44	43.87	8	0.11	
HLM1	HN	130.0	IAML			22:31	07.01	5	0.31		HTL	HZ	106.0	EP			21:44	33.42			0.44
WIM	EZ	141.0	EP			22:30	51.04			-0.15	HTL	HE	106.0	IAML			21:44	48.21	8	0.16	
MCH1	HZ	152.0	EP			22:30	52.59			-0.23	HTL	HN	106.0	IAML			21:44	48.55	8	0.29	
MCH1	HN	152.0	ES			22:31	09.91			0.29	July 3 2013 Time: 21:37 01.0 UTC Magnitude: 2.0 ML										
MCH1	HN	152.0	IAML			22:31	11.49	3	0.13		Lat: 48.536N Lon: -1.888W Depth: 7.7 km										
MCH1	HE	152.0	IAML			22:31	11.83	4	0.20		Grid Ref: 408.27 kmE -151.57 kmN RMS: 0.40 secs										
IOMK	HZ	154.0	EP			22:30	53.07			-0.07	Locality: NORTHWEST FRANCE										
MONM	HZ	174.0	EP			22:30	55.97			0.34	Velocity model: LowNet Xnear: 100.0 Xfar: 200.0										
June 29 2013 Time: 14:35 29.6 UTC Magnitude: 1.0 ML										Comment: 75KM SSE OF JERSEY											
Lat: 53.254N Lon: -4.350W Depth: 13.5 km										STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
Grid Ref: 243.25 kmE 375.61 kmN RMS: 0.10 secs										RENF	BZ	61.7	EP			21:37	11.90			0.52	
Locality: LLANGEFNI,ANGLESEY										RENF	BE	61.7	ES			21:37	18.30			-0.68	
Velocity model: LleyN Xnear: 80.0 Xfar: 200.0										JRS	EN	74.5	EP			21:37	13.68			0.31	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	JRS	EE	74.5	ES			21:37	21.80			-0.62
WLF1	HZ	5.0	IP		C	14:35	32.10			0.04	JRS	EE	74.5	IAML			21:37	22.07	114	0.16	
WLF1	HE	5.0	ES			14:35	33.71			0.00	JRS	EN	74.5	IAML			21:37	25.12	80	0.10	
WLF1	HE	5.0	IAML			14:35	33.79	66	0.10		JQE	EZ	74.7	EP			21:37	13.68			0.29
WLF1	HN	5.0	IAML			14:35	33.86	58	0.12		JSA	HZ	75.4	EP			21:37	13.73			0.22
YRC	EZ	15.0	EP			14:35	33.00			-0.02	JSA	HE	75.4	ES			21:37	22.10			-0.56
YRC	EZ	15.0	ES			14:35	35.32			0.00	JSA	HE	75.4	IAML			21:37	24.52	41	0.19	
WME	EZ	16.2	EP			14:35	33.11			-0.08	JSA	HN	75.4	IAML			21:37	25.35	76	0.18	
YLL	EZ	17.4	EP			14:35	33.36			0.02	JVM	EZ	79.2	EP			21:37	14.35			0.25
LLW	BZ	64.3	EP			14:35	40.25			-0.16	JLP	EZ	80.8	EP			21:37	14.63			0.27
LLW	BE	64.3	ES			14:35	47.95			0.20	July 6 2013 Time: 14:03 12.7 UTC Magnitude: 2.2 ML										
FOEL	HZ	87.1	EP			14:35	43.80			-0.15	Lat: 48.838N Lon: -2.980W Depth: 7.5 km										
IOMK	HZ	113.0	EP			14:35	48.14			0.24	Grid Ref: 328.10 kmE -117.54 kmN RMS: 0.40 secs										
June 30 2013 Time: 12:13 07.0 UTC Magnitude: 1.8 ML										Locality: NORTHWEST FRANCE											
Lat: 49.686N Lon: -4.563W Depth: 8.4 km										Velocity model: LowNet Xnear: 500.0 Xfar: 1000.0											
Grid Ref: 215.15 kmE -20.59 kmN RMS: 0.50 secs										Comment: 65KM SW OF JERSEY											
Locality: ENGLISH CHANNEL										STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
Velocity model: LowNet Xnear: 100.0 Xfar: 200.0										JVM	EZ	70.5	EP			14:03	24.10			-0.37	
Comment: 60KM SE OF FALMOUTH										JSA	HZ	70.8	EP			14:03	24.11			-0.39	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	JSA	HE	70.8	ES			14:03	33.25			0.12
CCA1	HZ	73.3	EP			12:13	18.64			-0.65	JSA	HN	70.8	IAML			14:03	36.83	131	0.26	
CCA1	HN	73.3	ES			12:13	28.28			0.05	JSA	HE	70.8	IAML			14:03	37.00	192	0.20	
CCA1	HE	73.3	IAML			12:13	29.69	70	0.15		JRS	EN	75.9	EP			14:03	25.05			-0.26
CCA1	HN	73.3	IAML			12:13	29.93	63	0.09		JRS	EE	75.9	ES			14:03	34.90			0.38
DYA	HZ	94.8	EP			12:13	22.77			0.13	JRS	EN	75.9	IAML			14:03	37.85	102	0.26	
DYA	HN	94.8	ES			12:13	33.62			-0.41	JRS	EE	75.9	IAML			14:03	38.34	131	0.12	
DYA	HE	94.8	IAML			12:13	35.70	14	0.18												

TABLE 2 : PHASE DATA

JDC	EZ	78.6	EP		14:03	25.41			-0.33		Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0						
JDC	EN	78.9	ES		14:03	35.94			0.62		Comment: FELT GAIRLOCH...				Intensity: 3				
JDG	EZ	78.9	EP		14:03	25.52			-0.24	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
JDC	EZ	78.9	EP		14:03	25.55			-0.22	RRR	SZ	16.5	IP	C	04:04	04.11			-0.07
JQE	EZ	79.7	EP		14:03	25.72			-0.18	KAC	EZ	34.9	IP	C	04:04	07.30			0.01
RENF	BZ	135.0	EP		14:03	34.63			0.37	KPL	HZ	42.2	IP	D	04:04	08.56			0.18
DYA	HZ	190.0	EP		14:03	41.66			-0.21	KPL	HN	42.2	ES		04:04	13.71			-0.17
DYA	HN	190.0	IAML		14:04	05.43	27	0.26		KPL	HE	42.2	IAML		04:04	14.14	830	0.17	
DYA	HE	190.0	IAML		14:04	07.11	24	0.25		KPL	HN	42.2	IAML		04:04	14.36	384	0.22	
CCA1	HZ	221.0	EP		14:03	45.72			0.01	RRH	SZ	61.9	IP	C	04:04	11.49			0.05
CCA1	HE	221.0	IAML		14:04	11.96	20	0.28		RSC	SZ	77.5	IP	D	04:04	13.74			-0.12
CCA1	HN	221.0	IAML		14:04	12.44	18	0.17		BIGH	HZ	137.0	EP		04:04	23.40			0.39
SBD	BZ	228.0	EP		14:03	47.26			0.70	BIGH	HE	137.0	ES		04:04	39.10			-0.08
										BIGH	HE	137.0	IAML		04:04	41.11	883	0.34	
July 13 2013				Time: 16:18	35.9	UTC		Magnitude: 0.8 ML		BIGH	HN	137.0	IAML		04:04	41.14	728	0.20	
Lat: 55.352N				Lon: -3.072W				Depth: 3.1 km		EAB	EZ	190.0	EP		04:04	31.02			0.84
Grid Ref: 332.04 kmE				606.97 kmN				RMS: 0.10 secs		EDU	EZ	209.0	EP		04:04	33.07			0.41
Locality: ETTRICK,BORDERS										PGB1	HZ	225.0	EP		04:04	35.44			0.85
Velocity model: Borders				Xnear: 50.0		Xfar: 150.0				PGB1	HE	225.0	IAML		04:05	06.51	72	0.56	
Comment: 8KM SSE OF ETTRICK										PGB1	HN	225.0	IAML		04:05	07.57	96	0.34	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	EDI	HZ	253.0	EP		04:04	38.14			0.15
ESK	HZ	9.3	EP		16:18	38.13			0.02	EDI	HN	253.0	IAML		04:05	16.08	45	0.70	
ESK	HN	9.3	ES		16:18	39.64			-0.04	EDI	HE	253.0	IAML		04:05	16.63	34	0.52	
ESK	HN	9.3	IAML		16:18	39.79	49	0.10		EBL	EZ	271.0	EP		04:04	40.65			0.24
ESK	HE	9.3	IAML		16:18	39.79	70	0.10		ESY	EZ	276.0	EP		04:04	41.36			0.41
BHH	SZ	30.3	EP		16:18	41.71			0.15	CLGH	HZ	294.0	EP		04:04	43.40			0.17
BHH	SN	30.3	ES		16:18	45.52			-0.07	CLGH	HN	294.0	IAML		04:05	31.00	23	0.20	
BHH	SE	30.3	IAML		16:18	45.70	20	0.14		CLGH	HE	294.0	IAML		04:05	31.28	39	0.44	
BHH	SN	30.3	IAML		16:18	45.90	16	0.18		ESK	HZ	309.0	EP		04:04	45.51			0.46
EBL	EZ	46.8	EP		16:18	44.36			0.07	ESK	HN	309.0	IAML		04:05	19.70	16	0.20	
EDI	HE	64.0	ES		16:18	54.97			0.04	ESK	HE	309.0	IAML		04:05	29.30	20	0.36	
EDI	HE	64.0	IAML		16:18	55.46	4	0.22		GALL	HZ	323.0	EP		04:04	47.24			0.39
EDI	HN	64.0	IAML		16:18	55.59	5	0.19		GALL	HN	323.0	ES		04:05	20.10			-0.33
ESY	EZ	69.2	EP		16:18	47.72			-0.20	GALL	HE	323.0	IAML		04:05	36.19	21	0.34	
GALL	HZ	118.0	EP		16:18	55.52			-0.25	GALL	HN	323.0	IAML		04:05	38.22	19	0.86	
GALL	HN	118.0	ES		16:19	09.93			0.05										
GALL	HN	118.0	IAML		16:19	11.18	3	0.30		July 16 2013				Time: 06:35	50.7	UTC		Magnitude: 0.7 ML	
GALL	HE	118.0	IAML		16:19	12.29	1	0.08		Lat: 57.710N				Lon: -5.758W				Depth: 5.2 km	
										Grid Ref: 176.17 kmE				875.09 kmN				RMS: 0.20 secs	
July 15 2013				Time: 21:31	20.4	UTC		Magnitude: 1.4 ML		Locality: GAIRLOCH,HIGHLAND									
Lat: 53.161N				Lon: -3.730W				Depth: 4.3 km		Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0							
Grid Ref: 284.35 kmE				364.08 kmN				RMS: 0.20 secs		Comment: FELT GAIRLOCH				Intensity: 2					
Locality: LLANRWST,CONWY										STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
Velocity model: Llleyn				Xnear: 80.0		Xfar: 200.0				RRR	SZ	16.7	EP		06:35	53.99			-0.10
Comment: FELT LLANLLECHID										RRR	SE	16.7	IAML		06:35	56.31	12	0.21	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	RRR	SN	16.7	IAML		06:35	56.42	15	0.21	
YLL	EZ	29.5	IP	C	21:31	25.63			0.16	KAC	EZ	36.1	EP		06:35	57.27			-0.11
LLW	BZ	35.0	IP	D	21:31	26.37			0.00	KPL	HZ	41.7	EP		06:35	58.44			0.23
LLW	BE	35.0	ES		21:31	30.42			-0.02	KPL	HE	41.7	ES		06:36	03.56			-0.11
LLW	BE	35.0	IAML		21:31	30.84	23	0.30		KPL	HN	41.7	IAML		06:36	03.63	4	0.18	
LLW	BN	35.0	IAML		21:31	31.07	26	0.25		KPL	HE	41.7	IAML		06:36	04.06	6	0.15	
WME	EZ	46.3	IP	D	21:31	28.27			0.03	BIGH	HZ	140.0	EP		06:36	13.52			0.27
WLF1	HZ	46.7	IP	C	21:31	28.41			0.11	BIGH	HE	140.0	IAML		06:36	30.92	3	0.14	
WLF1	HN	46.7	ES		21:31	33.78			0.10	BIGH	HN	140.0	IAML		06:36	31.07	3	0.20	
WLF1	HN	46.7	IAML		21:31	33.92	222	0.11											
WLF1	HE	46.7	IAML		21:31	34.33	59	0.24		July 18 2013				Time: 00:10	50.2	UTC		Magnitude: 0.8 ML	
FOEL	HZ	46.7	IP	D	21:31	28.26			-0.07	Lat: 53.409N				Lon: -4.456W				Depth: 10.9 km	
FOEL	HN	46.7	ES		21:31	33.93			0.21	Grid Ref: 236.77 kmE				393.08 kmN				RMS: 0.10 secs	
FOEL	HE	46.7	IAML		21:31	36.45	19	0.34		Locality: ANGLESEY,NORTH WALES									
FOEL	HN	46.7	IAML		21:31	37.37	22	0.38		Velocity model: Llleyn	Xnear: 75.0	Xfar: 150.0							
YRC	EZ	57.3	EP		21:31	29.82			-0.23	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
WPS	HZ	57.7	EP		21:31	30.07			-0.05	WPS	HZ	3.0	EP		00:10	52.13			0.06
WPS	HE	57.7	ES		21:31	36.69			-0.04	WPS	HE	3.0	ES		00:10	53.40			0.03
WPS	HN	57.7	IAML		21:31	37.15	27	0.18		WPS	HN	3.0	IAML		00:10	53.68	49	0.10	
WPS	HE	57.7	IAML		21:31	37.18	25	0.13		WPS	HE	3.0	IAML		00:10	53.68	40	0.08	
HLM1	HZ	91.6	EP		21:31	35.63			-0.12	WME	EZ	10.3	EP		00:10	52.71			0.00
HLM1	HN	91.6	ES		21:31	46.15			-0.04	WLF1	HZ	13.9	EP		00:10	53.19			0.04
HLM1	HN	91.6	IAML		21:31	47.10	5	0.10		WLF1	HE	13.9	ES		00:10	55.07			-0.11
HLM1	HE	91.6	IAML		21:31	47.47	6	0.18		WLF1	HE	13.9	IAML		00:10	55.16	30	0.10	
WIM	EZ	126.0	EP		21:31	41.13			-0.12	WLF1	HN	13.9	IAML		00:10	55.29	20	0.18	
IOMK	HZ	134.0	EP		21:31	41.84			-0.62	YRC	EZ	19.3	EP		00:10	53.89			-0.01
IOMK	HN	134.0	ES		21:31	57.95			0.49	LLW	BZ	81.8	EP		00:11	03.65			-0.11
IOMK	HN	134.0	IAML		21:31	59.05	7	0.09		LLW	BE	81.8	ES		00:11	13.13			0.13
IOMK	HE	134.0	IAML		21:31	59.42	10	0.10		IOMK	HN	95.1	ES		00:11	16.40			-0.05
MCH1	HZ	139.0	EP		21:31	42.97			-0.18	IOMK	HN	95.1	IAML		00:11	18.79	4	0.16	
MCH1	HE	139.0	ES		21:31	58.65			0.03	IOMK	HE	95.1	IAML		00:11	19.25	5	0.08	
MCH1	HE	139.0	IAML		21:32	00.84	6	0.27											
MCH1	HN	139.0	IAML		21:32	03.08	5	0.16		July 29 2013				Time: 10:50	31.7	UTC		Magnitude: 1.2 ML	
MONM	HZ	160.0	EP		21:31	46.62			0.26	Lat: 53.393N				Lon: -4.776W				Depth: 8.0 km	
MONM	HN	160.0	IAML		21:32	07.45	8	0.18		Grid Ref: 215.44 kmE				392.08 kmN				RMS: 0.10 secs	
MONM	HE	160.0	IAML		21:32	08.24	7	0.30		Locality: ANGLESEY,NORTH WALES									
CWF	HN	169.0	ES		21:32	06.15			0.12	Velocity model: Llleyn	Xnear: 80.0	Xfar: 200.0							
CWF	HN	169.0	IAML		21:32	08.28	6	0.18		Comment: OFFSHORE LOCATION									
CWF	HE	169.0	IAML		21:32	08.34	4	0.12		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
										WPS	HZ	18.5	EP		10:50	35.19			0.03
July 16 2013				Time: 04:04	00.9	UTC		Magnitude: 2.8 ML		WPS	HZ	18.5	AMPG		10:50	35.33	38	0.04	
Lat: 57.717N				Lon: -5.719W				Depth: 5.5 km		WPS	HE	18.5	ES		10:50	37.54			0.06
Grid Ref: 178.53 kmE				875.74 kmN				RMS: 0.20 secs		WPS	HZ	18.5	AMSG		10:50	37.90	24	0.06	
Locality: GAIRLOCH,HIGHLAND										WPS	HN								

TABLE 2 : PHASE DATA

WPS	HE	18.5	IAML		10:50	38.09	33	0.07		FOEL	HN	72.5	IAML	06:05	30.44	46	0.20
YRC	EZ	20.7	EP		10:50	35.51		0.01		HPK	HZ	89.4	EP	06:05	21.18		0.24
YRC	EZ	20.7	IP	D	10:50	35.55		0.05		HPK	HE	89.4	ES	06:05	31.95		0.24
YRC	EZ	20.7	AMPG		10:50	35.63	29	0.05		HPK	HN	89.4	IAML	06:05	33.73	145	0.14
YRC	EZ	20.7	AMSG		10:50	38.38	95	0.14		HPK	HE	89.4	IAML	06:05	35.07	132	0.18
WLF1	HZ	27.8	EP	C	10:50	36.66			0.03	HLM1	HZ	91.7	EP	06:05	21.11		-0.23
WLF1	HZ	27.8	AMPG		10:50	36.72	5	0.07		HLM1	HN	91.7	ES	06:05	31.76		-0.64
WLF1	HE	27.8	ES		10:50	39.86			-0.09	HLM1	HN	91.7	IAML	06:05	35.51	77	0.15
WLF1	HN	27.8	IAML		10:50	40.07	52	0.09		HLM1	HE	91.7	IAML	06:05	36.09	69	0.22
WLF1	HZ	27.8	AMSG		10:50	40.07	107	0.08		WLF1	HZ	138.0	EP	06:05	28.16		0.02
WLF1	HE	27.8	IAML		10:50	40.13	39	0.10		WLF1	HN	138.0	ES	06:05	44.17		0.01
WME	EZ	31.5	EP		10:50	37.16			-0.07	WLF1	HN	138.0	IAML	06:05	44.76	62	0.29
WME	EZ	31.5	IP	C	10:50	37.20			-0.03	WLF1	HE	138.0	IAML	06:05	46.43	38	0.07
WME	EZ	31.5	AMPG		10:50	37.24	6	0.07		WPS	HZ	146.0	EP	06:05	29.19		0.01
WME	EZ	31.5	AMSG		10:50	41.16	15	0.08		WPS	HE	146.0	ES	06:05	46.07		0.11
YLL	EZ	49.2	EP		10:50	40.08			-0.05	WPS	HN	146.0	ES	06:05	46.21		
WIM	EZ	84.3	EP		10:50	46.00			0.09	MCH1	HZ	149.0	EP	06:05	29.77		0.11
IOMK	HZ	97.6	EP		10:50	47.63			-0.32	MCH1	HN	149.0	ES	06:05	47.05		0.25
IOMK	HE	97.6	ES		10:50	59.09			0.12	MCH1	HE	149.0	IAML	06:05	48.56	49	0.13
FOEL	HZ	119.0	EP		10:50	51.65			0.31	MCH1	HN	149.0	IAML	06:05	48.74	91	0.21
FOEL	HE	119.0	ES		10:51	04.63			-0.03	KESW	HZ	156.0	EP	06:05	30.53		-0.09
FOEL	HE	119.0	IAML		10:51	07.16	10	0.13		KESW	HE	156.0	IAML	06:05	51.24	35	0.25
FOEL	HN	119.0	IAML		10:51	07.24	8	0.18		KESW	HN	156.0	IAML	06:05	51.63	26	0.23
										IOMK	HZ	185.0	EP	06:05	33.95		-0.39
July 31 2013					Time: 19:45	55.5	UTC		Magnitude: 1.2	IOMK	HN	185.0	IAML	06:05	58.38	19	0.20
	Lat: 48.677N				Lon: -2.453W				Depth: 7.4	IOMK	HE	185.0	IAML	06:05	58.98	18	0.23
	Grid Ref: 366.66	kmE			-135.80	kmN			RMS: 0.00								
	Locality: NORTHWEST FRANCE																
	Velocity model: Lownet				Xnear: 100.0				Xfar: 300.0								
	Comment: 60KM SSW OF JERSEY																
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES							
JSA	HZ	60.4	EP			19:46	05.69			-0.01							
JSA	HE	60.4	ES			19:46	13.16			0.00							
JSA	HN	60.4	IAML			19:46	16.09	12	0.13								
JSA	HE	60.4	IAML			19:46	18.01	7	0.18								
JVM	EZ	62.6	EP			19:46	06.02			-0.03							
JRS	EN	63.0	ES			19:46	13.87			0.00							
JRS	EE	63.0	IAML			19:46	16.82	19	0.06								
JRS	EN	63.0	IAML			19:46	17.10	10	0.09								
JQE	EZ	65.6	EP			19:46	06.48			-0.02							
JLP	EZ	68.5	EP			19:46	07.03			0.06							
August 12 2013					Time: 10:52	18.1	UTC			Magnitude: 1.3							
	Lat: 55.430N				Lon: -5.137W					Depth: 7.7							
	Grid Ref: 201.54	kmE			619.60	kmN				RMS: 0.50							
	Locality: ARRAN,NORTH AYRSHIRE																
	Velocity model: Lownet				Xnear: 100.0				Xfar: 200.0								
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES							
GALL	HZ	68.4	EP			10:52	30.04			0.45							
GALL	HE	68.4	ES			10:52	37.44			-0.52							
GALL	HE	68.4	IAML			10:52	37.95			9	0.10						
GALL	HN	68.4	IAML			10:52	41.63			19	0.04						
CLGH	HZ	73.0	EP			10:52	30.45										0.12
CLGH	HN	73.0	ES			10:52	39.02										-0.22
CLGH	HE	73.0	IAML			10:52	42.66			22	0.22						
CLGH	HN	73.0	IAML			10:52	42.97			14	0.18						
EAB	EZ	98.2	EP			10:52	33.93										-0.32
INVG	HZ	130.0	EP			10:52	39.32										0.18
INVG	HE	130.0	IAML			10:52	56.61			2	0.38						
INVG	HN	130.0	IAML			10:52	57.86			4	0.11						
IOMK	HZ	135.0	EP			10:52	40.92										1.10
IOMK	HE	135.0	ES			10:52	55.54										-0.12
IOMK	HN	135.0	IAML			10:52	57.64			14	0.24						
IOMK	HE	135.0	IAML			10:52	58.33			10	0.43						
August 25 2013					Time: 05:37	48.3	UTC			Magnitude: 2.5							
	Lat: 53.863N				Lon: -3.380W					Depth: 4.2							
	Grid Ref: 309.26	kmE			441.66	kmN				RMS: 0.20							
	Locality: IRISH SEA																
	Velocity model: Borders				Xnear: 50.0				Xfar: 100.0								
	Comment: FELT FLEETWOOD...									Intensity: 3							
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES							
SPK	EZ	63.9	EP			05:37	59.02			-0.02							
SPK	EN	63.9	ES			05:38	06.68			0.00							
SPK	EN	63.9	IAML			05:38	10.09			316	0.25						
SPK	EE	63.9	IAML			05:38	10.42			411	0.21						
WME	EZ	80.2	EP			05:38	01.43										-0.09
KESW	HZ	82.7	EP			05:38	01.90										-0.04
KESW	HE	82.7	ES			05:38	11.75										0.11
KESW	HE	82.7	IAML			05:38	12.88			175	0.46						
KESW	HN	82.7	IAML			05:38	14.51			122	0.42						
IOMK	HZ	89.3	EP			05:38	03.08										0.15
IOMK	HE	89.3	IAML			05:38	16.21			158	0.32						
IOMK	HN	89.3	IAML			05:38	16.80			164	0.14						
WPS	HZ	90.2	EP			05:38	03.12										0.10
WPS	HN	90.2	IAML			05:38	16.76			64	0.16						
WPS	HE	90.2	IAML			05:38	20.14			44	0.36						
WIM	EZ	90.5	EP			05:38	03.21										0.07
WLF1	HZ	92.8	EP			05:38	03.38										-0.05
WLF1	HN	92.8	IAML			05:38	19.34			78	0.12						
WLF1	HE	92.8	IAML			05:38	20.98			97	0.28						
YLL	EZ	96.1	EP			05:38	04.93										0.99
YRC	EZ	105.0	EP			05:38	05.26										0.07
FOEL	HZ	109.0	EP			05:38	06.82										0.86
FOEL	HE	109.0	ES			05:38	20.07										1.55
FOEL	HE	109.0	IAML			05:38	25.11			179	0.36						
FOEL	HN	109.0	IAML			05:38	25.83			137	0.46						
LLW	BZ	114.0	EP			05:38	07.35										0.62
STNC	HN	116.0	ES			05:38	23.57										3.32
HPK	HZ	116.0	EP			05:38	07.68										0.72
HPK	HE	116.0	ES			05:38	21.90										1.68
HPK	HN	116.0	IAML			05:38	23.91			326	0.36						
HPK	HE	116.0	IAML			05:38	24.94			349	0.50						
STNC	HZ	116.0	EP			05:38	08.46										1.48

TABLE 2 : PHASE DATA

STNC	HE	116.0	IAML	05:38	26.96	189	0.36							MCH1	HZ	211.0	EP	09:59	09.06				0.54		
STNC	HN	116.0	IAML	05:38	27.36	208	0.40							CLGH	HZ	221.0	EP	09:59	09.51				-0.21		
GAL1	HZ	141.0	EP	05:38	10.72			0.60						PGB1	HZ	226.0	EP	09:59	10.32				0.00		
GAL1	HN	141.0	IAML	05:38	28.69	21	0.18							EDI	HZ	228.0	EP	09:59	10.41				-0.11		
GAL1	HE	141.0	IAML	05:38	30.24	18	0.18							ESY	EZ	232.0	EP	09:59	10.82				-0.30		
EDMD	HZ	142.0	EP	05:38	11.27			1.11						STRD	HZ	249.0	EP	09:59	13.60				0.44		
EDMD	HN	142.0	ES	05:38	28.78			3.07						LAWE	HZ	294.0	EP	09:59	18.36				-0.47		
EDMD	HN	142.0	IAML	05:38	30.32	310	0.20							KPL	HZ	410.0	EP	09:59	33.34				0.00		
EDMD	HE	142.0	IAML	05:38	33.05	198	0.54							KAC	EZ	420.0	EP	09:59	34.24				-0.36		
MCH1	HZ	209.0	EP	05:38	20.72			2.08																	
MCH1	HE	209.0	IAML	05:38	48.13	33	0.44							August 27 2013			Time: 10:06 06.0 UTC				Magnitude: 2.7 ML				
MCH1	HN	209.0	IAML	05:38	48.72	40	0.42							Lat: 56.641N			Lon: -4.374W				Depth: 2.8 km				
														Grid Ref: 254.43 kmE			752.41 kmN				RMS: 0.40 secs				
August 25 2013			Time: 07:13 24.2 UTC					Magnitude: 0.9 ML						Locality: GLEN LYON, PERTH/KINROSS											
			Lat: 53.891N					Lon: -3.344W						Velocity model: Lownet			Xnear: 150.0				Xfar: 300.0				
			Grid Ref: 311.68 kmE					444.73 kmN						Comment: FELT GLENLYON...							Intensity: 3				
			Locality: IRISH SEA											STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
			Velocity model: Lownet					Xnear: 100.0						INVG	HZ		31.3		IP		C	10:06	11.52		-0.31
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES				INVG	HN		31.3		ES			10:06	15.06		-1.02
KESW	HZ	79.2	EP			07:13	37.49			0.13				INVG	HN		31.3		IAML			10:06	15.32	239	0.11
KESW	HE	79.2	ES			07:13	46.87			-0.12				INVG	HE		31.3		IAML			10:06	15.62	266	0.18
KESW	HE	79.2	IAML			07:13	48.74	6	0.58					ELO	EZ		45.0		IP		C	10:06	13.91		-0.29
KESW	HN	79.2	IAML			07:13	49.84	4	0.44					EAB	EZ		50.4		EP			10:06	14.97		-0.09
WME	EZ	83.9	EP			07:13	37.55			-0.52				LAWE	HZ		76.1		EP			10:06	18.78		-0.24
IOMK	HZ	89.9	EP			07:13	39.05			0.04				LAWE	HN		76.1		IAML			10:06	32.16	1228	0.24
IOMK	HN	89.9	ES			07:13	49.74			-0.10				LAWE	HE		76.1		IAML			10:06	32.63	431	0.09
IOMK	HN	89.9	IAML			07:13	52.00	4	0.18					EDU	EZ		84.4		EP			10:06	20.60		0.24
IOMK	HE	89.9	IAML			07:13	52.28	6	0.20					PGB1	HZ		92.6		EP			10:06	22.15		0.56
WPS	HZ	93.8	EP			07:13	39.91			0.33				PGB1	HE		92.6		IAML			10:06	33.97	75	0.30
WLF1	HZ	96.6	EP			07:13	40.27			0.25				PGB1	HN		92.6		IAML			10:06	36.60	68	0.18
YRC	EZ	108.0	EP			07:13	41.89			0.07				EAU	EZ		106.0		EP			10:06	23.94		0.31
FOEL	HZ	112.0	EP			07:13	42.29			-0.17				EDI	HZ		109.0		EP			10:06	24.06		0.01
GAL1	HZ	140.0	EP			07:13	47.75			1.15				EDI	HN		109.0		ES			10:06	37.48		0.27
ESK	HZ	159.0	EP			07:13	51.15			1.86				EDI	HN		109.0		IAML			10:06	40.82	137	0.46
														EDI	HE		109.0		IAML			10:06	41.37	167	0.22
August 25 2013			Time: 09:58 36.5 UTC					Magnitude: 3.3 ML						KPL	HZ		110.0		EP			10:06	24.73		0.49
			Lat: 53.882N					Lon: -3.394W						KPL	HN		110.0		IAML			10:06	39.53	361	0.24
			Grid Ref: 308.38 kmE					443.79 kmN						KPL	HE		110.0		IAML			10:06	39.53	292	0.26
			Locality: IRISH SEA											KAC	EZ		111.0		IP		C	10:06	24.58		0.17
			Velocity model: Borders					Xnear: 100.0						DRUM	HZ		119.0		EP			10:06	25.92		0.19
			Comment: FELT FLEETWOOD...							Intensity: 3				DRUM	HN		119.0		ES			10:06	40.07		-0.05
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES				DRUM	HN		119.0		IAML			10:06	43.37	334	0.20
SPK	EZ	61.7	IP		D	09:58	47.30			0.14				DRUM	HE		119.0		IAML			10:06	44.36	254	0.12
SPK	EN	61.7	ES			09:58	54.92			0.18				EBL	EZ		127.0		EP			10:06	27.42		0.43
SPK	EE	61.7	IAML			09:58	55.78	3976	0.28					ESY	EZ		136.0		IP		C	10:06	28.49		0.25
SPK	EN	61.7	IAML			09:58	55.94	2334	0.24					RRR	SZ		161.0		EP			10:06	31.51		-0.27
WME	EZ	80.8	IP		C	09:58	49.69			-0.59				RRR	SE		161.0		IAML			10:06	53.64	95	0.34
WME	EZ	80.8	ES			09:59	00.80			0.72				RRR	SN		161.0		IAML			10:06	54.00	93	0.20
KESW	HZ	80.9	IP		C	09:58	50.20			-0.12				ESK	HZ		165.0		EP			10:06	32.91		0.55
KESW	HE	80.9	ES			09:59	00.11			-0.03				ESK	HN		165.0		ES			10:06	51.52		-0.07
KESW	HE	80.9	IAML			09:59	01.41	1643	0.49					ESK	HE		165.0		IAML			10:06	54.05	88	0.22
KESW	HN	80.9	IAML			09:59	03.00	1075	0.39					ESK	HN		165.0		IAML			10:06	54.54	86	0.22
IOMK	HZ	87.5	IP		D	09:58	51.28			-0.10				RSC	SZ		196.0		EP			10:06	36.08		-0.33
IOMK	HE	87.5	ES			09:59	02.43			0.47				RRH	SZ		199.0		EP			10:06	36.24		-0.60
IOMK	HN	87.5	IAML			09:59	04.47	1021	0.25					CLGH	HZ		205.0		EP			10:06	36.73		-0.80
IOMK	HE	87.5	IAML			09:59	05.52	1217	0.23					CLGH	HN		205.0		IAML			10:07	05.88	41	0.18
WIM	EZ	88.9	IP		D	09:58	51.50			-0.15				CLGH	HE		205.0		IAML			10:07	10.37	34	0.30
WIM	EZ	88.9	ES			09:59	02.04			-0.37				BIGH	HZ		208.0		EP			10:06	36.99		-0.94
WPS	HZ	90.6	EP			09:58	51.31			-0.54				BIGH	HN		208.0		IAML			10:07	05.63	30	0.16
WPS	HN	90.6	ES			09:59	03.47			0.71				BIGH	HE		208.0		IAML			10:07	06.25	38	0.12
WPS	HN	90.6	IAML			09:59	05.20	321	0.16																
WPS	HE	90.6	IAML			09:59	07.57	193	0.19					August 28 2013			Time: 14:27 46.3 UTC				Magnitude: 1.3 ML				
WLF1	HZ	93.6	EP			09:58	51.65			-0.70				Lat: 52.294N			Lon: -3.358W				Depth: 3.7 km				
WLF1	HN	93.6	ES			09:59	04.53			0.92				Grid Ref: 307.40 kmE			267.12 kmN				RMS: 0.30 secs				
WLF1	HE	93.6	IAML			09:59	05.39	478	0.33					Locality: LLANDRINDOD WELLS, POWYS											
WLF1	HN	93.6	IAML			09:59	09.13	430	0.23					Velocity model: Mid Wales			Xnear: 80.0				Xfar: 200.0				
YRC	EZ	105.0	IP		D	09:58	53.52			-0.70				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
FOEL	HZ	111.0	EP			09:58	54.76			-0.52				MCH1	HZ		41.2		IP		D	14:27	53.37		-0.05
FOEL	HE	111.0	ES			09:59	08.26			-0.37				MCH1	HE		41.2		ES			14:27	58.46		-0.11
FOEL	HN	111.0	IAML			09:59	11.75	528	0.33					MCH1	HN		41.2		IAML			14:27	58.83	14	0.20
FOEL	HE	111.0	IAML			09:59	13.69	936	0.43					MCH1	HE		41.2		IAML			14:27	58.97	22	0.10
HPK	HZ	117.0	IP		C	09:58	56.02			-0.10				MONM	HZ		63.3		IP		D	14:27	57.22		0.15
HPK	HE	117.0	ES			09:59	10.87			0.82				MONM	HE		63.3		ES			14:28	04.92		0.08
HPK	HN	117.0	IAML			09:59	12.67	2305	0.18					MONM	HE		63.3		IAML			14:28	05.08	18	0.14
HPK	HE	117.0	IAML			09:59	13.52	2615	0.48					MONM	HN		63.3		IAML			14:28	05.15	14	0.28
STNC	HZ	118.0	EP			09:58	56.90			0.53				LLW	BZ		65.2		EP			14:27	57.54		0.15

TABLE 2 : PHASE DATA

WLF1	HN	131.0	IAML		14:28	24.87	9	0.15		HTL	HZ	330.0	EP	06:37	00.26		2.58																						
YRC	EZ	135.0	EP		14:28	08.58		0.05		KAC	EZ	420.0	EP	06:37	09.08		0.18																						
WME	EZ	138.0	EP		14:28	09.01		-0.10																															
August 31 2013										Time: 01:19 41.9 UTC		Magnitude: 1.8 ML		September 1 2013				Time: 16:07 15.0 UTC		Magnitude: 0.7 ML																			
Lat: 55.620N		Lon: -3.135W		Depth: 4.7 km						Lat: 57.365N		Lon: -5.493W		Depth: 4.3 km		Grid Ref: 189.96 kmE 835.87 kmN				RMS: 0.10 secs																			
Grid Ref: 328.53 kmE		636.85 kmN		RMS: 0.30 secs				Locality: LOCHCARRON,HIGHLAND																															
Locality: PEEBLES,BORDERS										Velocity model: Lownet										Xnear: 100.0		Xfar: 200.0																	
Velocity model: Lownet										Xnear: 100.0		Xfar: 200.0		STAT										CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES						
Comment: FELT PEEBLES...										Intensity: 3		KPL										HZ	10.0	IP		C	16:07	17.20			0.01								
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	KPL	HN	10.0	ES			16:07	18.77			-0.02																		
EBL	EZ	17.9	IP		D	01:19	45.69			0.17	KPL	HN	10.0	IAML			16:07	18.95	18	0.18																			
EBL	EZ	17.9	ES			01:19	48.02			-0.13	KPL	HE	10.0	IAML			16:07	18.96	27	0.22																			
EAU	EZ	31.9	EP			01:19	48.03			0.17	KAC	EZ	18.9	EP			16:07	18.80			0.09																		
EDI	HZ	33.9	IP		D	01:19	48.25			0.08	KAC	EZ	18.9	ES			16:07	21.35			-0.07																		
EDI	HE	33.9	ES			01:19	52.62			-0.11	LAW	HN	123.0	ES			16:07	49.90			-0.02																		
EDI	HN	33.9	IAML			01:19	52.87	271	0.13		LAW	HN	123.0	IAML			16:07	50.72	5	0.14																			
EDI	HE	33.9	IAML			01:19	52.92	118	0.19		LAW	HE	123.0	IAML			16:07	50.91	2	0.15																			
ESK	BZ	34.1	IP		D	01:19	48.27			0.05	September 1 2013										Time: 19:28 48.9 UTC		Magnitude: 1.1 ML																
ESK	BE	34.1	ES			01:19	52.31			-0.51	Lat: 57.140N		Lon: -5.805W		Depth: 6.8 km		Grid Ref: 169.81 kmE 811.86 kmN				RMS: 0.30 secs																		
ESK	BN	34.1	IAML			01:19	52.81	157	0.07		Locality: SKYE,HIGHLAND																												
ESK	BE	34.1	IAML			01:19	53.31	124	0.09		Velocity model: Lownet										Xnear: 100.0		Xfar: 200.0																
ESY	EZ	46.5	EP			01:19	50.06			-0.17	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																		
PGB1	HZ	87.4	EP			01:19	56.81			0.27	KPL	HZ	24.0	IP		D	19:28	53.66			0.15																		
PGB1	HN	87.4	ES			01:20	07.07			-0.15	KPL	HE	24.0	ES			19:28	56.60			-0.24																		
PGB1	HN	87.4	IAML			01:20	09.80	114	0.19		KPL	HE	24.0	IAML			19:28	56.79	43	0.16																			
PGB1	HE	87.4	IAML			01:20	10.26	99	0.23		KPL	HN	24.0	IAML			19:28	56.81	23	0.22																			
EAB	EZ	98.3	EP			01:19	58.43			0.18	KAC	EZ	50.3	EP			19:28	57.77			-0.03																		
INVG	HZ	106.0	EP			01:19	59.60			0.12	LAW	HN	101.0	EP			19:29	05.93			0.27																		
INVG	HN	106.0	ES			01:20	11.82			-0.49	LAW	HN	101.0	ES			19:29	17.46			-0.41																		
INVG	HN	106.0	IAML			01:20	12.77	13	0.26		LAW	HN	101.0	IAML			19:29	20.52	24	0.18																			
INVG	HE	106.0	IAML			01:20	15.03	10	0.30		LAW	HE	101.0	IAML			19:29	20.53	21	0.20																			
KESW	HZ	115.0	IP		D	01:20	01.42			0.61	INVG	HZ	134.0	EP			19:29	11.12			0.44																		
KESW	HN	115.0	IAML			01:20	17.52	19	0.32		INVG	HE	134.0	ES			19:29	26.68			0.13																		
KESW	HZ	115.0	IAML			01:20	17.70	17	0.25		INVG	HN	134.0	IAML			19:29	27.15	1	0.22																			
KESW	HE	115.0	IAML			01:20	17.87	20	0.30		INVG	HE	134.0	IAML			19:29	27.40	1	0.19																			
GAL1	HZ	131.0	EP			01:20	03.16			-0.06	September 1 2013															Time: 21:28 47.7 UTC		Magnitude: 1.1 ML											
LAW	HZ	158.0	EP			01:20	07.77			0.59	Lat: 52.316N		Lon: -3.600W		Depth: 10.8 km		Grid Ref: 290.95 kmE 269.90 kmN				RMS: 0.20 secs																		
IOMK	HZ	177.0	EP			01:20	08.78			-0.94	Locality: RHAYADER,POWYS																												
August 31 2013										Time: 06:36 11.4 UTC		Magnitude: 2.6 ML		Velocity model: Borders										Xnear: 100.0		Xfar: 200.0													
Lat: 53.886N		Lon: -3.403W		Depth: 10.6 km		RMS: 0.40 secs				STAT										CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES										
Grid Ref: 307.79 kmE		444.25 kmN		RMS: 0.40 secs				Comment: FELT FLEETWOOD...										Intensity: 3		MCH1										HZ	54.3	IP		D	21:28	57.08			0.02
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	MCH1	HE	54.3	ES			21:29	03.69			-0.14																		
SPK	EZ	61.2	EP			06:36	22.21			0.15	MCH1	HN	54.3	IAML			21:29	03.86	70	0.10																			
SPK	EN	61.2	ES			06:36	29.87			0.24	MCH1	HE	54.3	IAML			21:29	03.87	50	0.10																			
SPK	EE	61.2	IAML			06:36	30.64	667	0.27		LLW	BZ	59.5	EP			21:28	58.11			0.20																		
SPK	EN	61.2	IAML			06:36	30.78	425	0.21		LLW	BN	59.5	ES			21:29	05.24			-0.04																		
KESW	HZ	80.6	IP		C	06:36	25.10			-0.14	LLW	BN	59.5	IAML			21:29	05.87	5	0.09																			
KESW	HE	80.6	ES			06:36	34.82			-0.24	LLW	BE	59.5	IAML			21:29	05.91	8	0.10																			
KESW	HE	80.6	IAML			06:36	36.51	235	0.50		FOEL	HZ	69.4	EP			21:28	59.64			0.09																		
KESW	HN	80.6	IAML			06:36	37.87	160	0.41		FOEL	HN	69.4	ES			21:29	07.92			-0.18																		
WME	EZ	80.7	IP		D	06:36	24.86			-0.36	FOEL	HN	69.4	IAML			21:29	08.98	7	0.48																			
IOMK	HZ	86.8	EP			06:36	26.33			0.10	FOEL	HE	69.4	IAML			21:29	09.73	7	0.56																			
IOMK	HN	86.8	ES			06:36	36.94			0.19	MONM	HZ	76.1	EP			21:29	00.73			0.11																		
IOMK	HN	86.8	IAML			06:36	39.39	179	0.17		MONM	HN	76.1	ES			21:29	09.92			-0.04																		
IOMK	HE	86.8	IAML			06:36	40.43	233	0.25		MONM	HN	76.1	IAML			21:29	10.14	11	0.28																			
WIM	EZ	88.2	EP			06:36	26.38			-0.12	MONM	HE	76.1	IAML			21:29	10.44	10	0.30																			
WPS	HZ	90.4	EP			06:36	26.40			-0.38	RSBS	HZ	88.2	EP			21:29	02.30			-0.19																		
WPS	HE	90.4	ES			06:36	38.11			0.42	RSBS	HE	88.2	IAML			21:29	14.77	4	0.10																			
WPS	HE	90.4	IAML			06:36	40.09	75	0.26		RSBS	HN	88.2	IAML			21:29	15.42	4	0.07																			
WPS	HN	90.4	IAML			06:36	40.36	66	0.29		STRD	HZ	115.0	EP			21:29	06.95			0.37																		
WLF1	HZ	93.5	EP			06:36	26.75			-0.54	CWF	HZ	163.0	EP			21:29	13.22			-0.22																		
WLF1	HN	93.5	ES			06:36	39.51			0.95	CWF	HN	163.0	ES			21:29	31.74			-0.27																		
WLF1	HE	93.5	IAML			06:36	41.65	110	0.14		CWF	HN	163.0	IAML			21:29	32.22	4	0.30																			
WLF1	HN	93.5	IAML			06:36	41.98	112	0.19		CWF	HE	163.0	IAML			21:29	32.24	3	0.19																			
YRC	EZ	105.0	EP			06:36	28.60			-0.54	September 3 2013															Time: 06:44 36.2 UTC		Magnitude: 1.7 ML											
FOEL	HZ	112.0	EP			06:36	29.52			-0.72	Lat: 56.359N		Lon: -4.853W		Depth: 3.8 km		Grid Ref: 223.76 kmE 722.16 kmN				RMS: 0.20 secs																		
FOEL	HE	112.0	ES			06:36	43.89			0.29	Locality: DALMALLY,ARGYLL/BUTE																												
FOEL	HE	112.0	IAML			06:36	46.47	160	0.27		Velocity model: Lownet										Xnear: 100.0		Xfar: 200.0																
FOEL	HN	112.0	IAML			06:36	46.56	149	0.17		Comment: 8KM SE OF DALMALLY																												
HPK	HZ	117.0	EP			06:36	30.95			-0.07	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																		
HPK	HE	117.0	ES			06:36	45.77			0.83	LAW	HZ	35.5	IP		C	06:44	42.57			-0.10																		
HPK	HN	117.0	IAML			06:36	47.57	594	0.14		LAW	HE	35.5	ES			06:44	47.23			-0.19																		
HPK	HE	117.0	IAML			06:36	48.20	456	0.19		LAW	HN	35.5	IAML			06:44	47.51	115	0.18																			
GAL1	HZ	138.0	EP			06:36	33.67			-0.06	LAW	HE	35.5	IAML			06:44	47.53	55	0.19																			
EDMD	HZ	141.0	EP			06:36	34.21			0.19	EAB	EZ	37.1	IP		C	06:44	42.72			-0.25																		
ESK	HZ	160.0	EP			06:36	36.33			-0.11	INVG	HZ	50.6	EP		9	06:44	44.11			-1.11																		
MCH1	HZ	212.0	EP			06:36	44.03			1.09	INVG	HN	50.6	ES			06:44	49.91			-0.81																		
PGB1	HZ	225.0	EP			06:36	45.11			0.49	INVG	HN	50.6	IAML			06:44	50.20	45	0.20																			
MONM	HZ	231.0	EP			06:36	46.74			1.39	INVG	HE	50.6	IAML			06:44	50.29	16	0.14																			
ESY	EZ	232.0	EP			06:36	45.76			0.31	PGB1	HE	65.1	IAML			06:44	56.59	19	0.42																			
RSBS	HZ	233.0	EP			06:36	46.71			1.09	EAU	EZ	104.0	IP		D	06:44	53.77			0.17																		
EAB	EZ	263.0	EP			06:36	49.76			0.39	EDI	HZ	114.0	EP			06:44	55.30			0.23																		
INVG	HZ	286.0	EP			06:36	52.58			0.38																													
LAW	HZ	293.0	EP			06:36	53.28			0.16																													

TABLE 2 : PHASE DATA

EDI	HN	114.0	IAML	06:45	11.62	20	0.26			Grid Ref: 191.41 kmE 222.99 kmN									RMS: 0.20 secs
EDI	HE	114.0	IAML	06:45	11.70	28	0.36			Locality: ROCH,PEMBROKESHIRE									
KPL	HZ	120.0	EP	06:44	55.89			0.02		Velocity model: Mid Wales	Xnear: 150.0	Xfar: 300.0							
KPL	HE	120.0	ES	06:45	10.27			0.01		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
KPL	HN	120.0	IAML	06:45	13.11	37	0.22			RSBS	HZ	21.9	EP		03:22	24.29			0.20
KPL	HE	120.0	IAML	06:45	13.24	37	0.32			RSBS	HE	21.9	ES		03:22	26.99			-0.11
EBL	EZ	130.0	EP	06:44	57.69			0.09		RSBS	HE	21.9	IAML		03:22	27.07	47	0.07	
KAC	EZ	130.0	EP	06:44	57.68			0.18		RSBS	HN	21.9	IAML		03:22	27.17	15	0.06	
ESK	HZ	155.0	EP	06:45	01.63			0.46		MCH1	HZ	140.0	EP		03:22	42.32			-0.31
ESK	HN	155.0	ES	06:45	19.75			0.31		MCH1	HE	140.0	ES		03:22	59.10			0.11
ESK	HE	155.0	IAML	06:45	22.75	11	0.24			MCH1	HE	140.0	IAML		03:22	59.39	3	0.18	
ESK	HN	155.0	IAML	06:45	23.95	11	0.26			MCH1	HN	140.0	IAML		03:22	59.47	5	0.24	
DRUM	HZ	158.0	EP	06:45	01.48			-0.04		MONM	HZ	153.0	EP		03:22	44.67			0.11
DRUM	HN	158.0	ES	06:45	19.79			-0.24		MONM	HE	153.0	ES		03:23	02.32			0.01
DRUM	HN	158.0	IAML	06:45	22.22	28	0.40			MONM	HE	153.0	IAML		03:23	03.13	3	0.50	
DRUM	HE	158.0	IAML	06:45	22.82	15	0.11			MONM	HN	153.0	IAML		03:23	03.58	3	0.24	
CLGH	HZ	163.0	EP	06:45	01.82			-0.38		WLF1	HE	164.0	ES		03:23	04.67			0.01
CLGH	HN	163.0	IAML	06:45	25.19	14	0.38												
CLGH	HE	163.0	IAML	06:45	26.51	18	0.36			September 22 2013	Time: 23:06 02.1 UTC								Magnitude: 1.4 ML
										Lat: 51.763N	Lon: -4.252W								Depth: 2.7 km
September 6 2013				Time: 17:21 06.7 UTC				Magnitude: 0.8 ML		Grid Ref: 244.61 kmE 209.60 kmN									RMS: 0.10 secs
	Lat: 52.960N			Lon: -4.364W				Depth: 19.1 km		Locality: LLANNON,CARMARTHENSHIRE									
	Grid Ref: 241.23 kmE			342.94 kmN				RMS: 0.10 secs		Velocity model: Mid Wales	Xnear: 150.0	Xfar: 300.0							
	Locality: PWLLHELI,GWYNEDD									Comment: 9KM WEST OF LLANNON									
	Velocity model: Llleyn			Xnear: 50.0	Xfar: 100.0					STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
	Comment: 10KM NE OF PWLLHELI									MCH1	HZ	90.2	EP		23:06	17.33			-0.08
										MCH1	HN	90.2	ES		23:06	28.42			-0.03
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	MCH1	HE	90.2	IAML		23:06	28.74	6	0.28	
YRC	EZ	35.3	EP		17:21	13.23			0.01	MCH1	HN	90.2	IAML		23:06	28.82	8	0.12	
YRC	EZ	35.3	ES		17:21	17.75			0.08	MONM	HZ	100.0	EP		23:06	19.05			-0.01
WLF1	HZ	36.7	EP		17:21	13.32			-0.10	MONM	HZ	100.0	EP		23:06	19.05			-0.01
WLF1	HN	36.7	ES		17:21	17.91			-0.10	MONM	HN	100.0	ES		23:06	31.43			0.14
WLF1	HE	36.7	IAML		17:21	18.26	26	0.11		MONM	HE	100.0	IAML		23:06	31.67	12	0.30	
WLF1	HN	36.7	IAML		17:21	18.39	9	0.09		MONM	HN	100.0	IAML		23:06	31.77	15	0.12	
WME	EZ	48.8	EP		17:21	15.05			-0.14	STRD	HZ	144.0	EP		23:06	25.99			0.07
WME	EZ	48.8	ES		17:21	21.06			0.07	STRD	HE	144.0	ES		23:06	42.99			-0.10
WPS	HZ	49.8	EP		17:21	15.44			0.10	STRD	HN	144.0	IAML		23:06	44.60	7	0.20	
WPS	HE	49.8	ES		17:21	21.26			0.03	STRD	HE	144.0	IAML		23:06	45.41	7	0.16	
WPS	HN	49.8	IAML		17:21	22.16	5	0.68		WLF1	HE	170.0	ES		23:06	49.61			0.02
WPS	HE	49.8	IAML		17:21	22.17	4	0.10		WLF1	HE	170.0	IAML		23:06	51.49	8	0.14	
FOEL	HZ	78.6	EP		17:21	19.75			0.01	WLF1	HN	170.0	IAML		23:06	51.50	4	0.25	
FOEL	HN	78.6	ES		17:21	28.85			0.21										
										September 26 2013	Time: 06:21 12.3 UTC								Magnitude: 1.7 ML
September 9 2013				Time: 20:51 48.8 UTC				Magnitude: 1.6 ML		Lat: 53.639N	Lon: -1.004W								Depth: 1.1 km
	Lat: 56.373N			Lon: -4.808W				Depth: 7.1 km		Grid Ref: 465.84 kmE 416.32 kmN									RMS: 0.40 secs
	Grid Ref: 226.61 kmE			723.61 kmN				RMS: 0.60 secs		Locality: DONCASTER,S YORKSHIRE									
	Locality: TYNDRUM,STIRLING									Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0							
	Velocity model: Lownet			Xnear: 100.0	Xfar: 200.0					Comment: C/F									
	Comment: 10KM SW OF TYNDRUM									STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	LMK	HZ	49.3	EP		06:21	20.48			-0.35
EAB	EZ	35.7	EP		20:51	54.97			-0.32	LMK	HE	49.3	ES		06:21	26.86			-0.23
LAW	EZ	35.7	EP		20:51	54.97			-0.32	LMK	HE	49.3	IAML		06:21	30.32	81	0.45	
LAW	HZ	38.7	ES		20:52	00.08			-0.67	LMK	HN	49.3	IAML		06:21	30.63	120	0.25	
INVG	HE	47.6	IP		20:51	56.78			-0.35	HPK	HZ	54.1	EP		06:21	21.90			0.31
INVG	HN	47.6	ES		20:52	02.32			-0.87	HPK	HN	54.1	ES		06:21	28.55			0.15
PGB1	HZ	65.7	EP		20:52	00.70			0.77	HPK	HN	54.1	IAML		06:21	29.11	50	0.29	
PGB1	HE	65.7	ES		20:52	08.24			0.20	HPK	HE	54.1	IAML		06:21	30.60	50	0.32	
PGB1	HE	65.7	IAML		20:52	09.56	13	0.21		LBWR	HZ	54.6	EP		06:21	21.32			-0.37
PGB1	HN	65.7	IAML		20:52	09.63	11	0.39		LBWR	HE	54.6	ES		06:21	28.01			-0.56
EDI	HZ	113.0	EP		20:52	07.82			0.65	LBWR	HE	54.6	IAML		06:21	28.68	47	0.37	
EDI	HN	113.0	IAML		20:52	24.47	16	0.28		LBWR	HN	54.6	IAML		06:21	29.14	66	0.36	
EDI	HE	113.0	IAML		20:52	24.59	21	0.27		CWF	HZ	102.0	EP		06:21	29.33			0.28
KPL	HZ	119.0	EP		20:52	08.62			0.43	CWF	HN	102.0	ES		06:21	41.86			0.56
KPL	HN	119.0	ES		20:52	22.66			0.34	CWF	HN	102.0	IAML		06:21	44.74	14	0.23	
KPL	HN	119.0	IAML		20:52	26.04	29	0.21		CWF	HE	102.0	IAML		06:21	45.03	13	0.13	
KPL	HE	119.0	IAML		20:52	26.11	29	0.32		WACR	HZ	149.0	EP		06:21	36.95			0.94
KAC	EZ	129.0	EP		20:52	10.23			0.57										
ESK	HZ	155.0	EP		20:52	14.67			1.31	September 27 2013	Time: 03:03 29.9 UTC								Magnitude: 0.6 ML
DRUM	HZ	155.0	EP		20:52	14.00			0.66	Lat: 55.352N	Lon: -3.218W								Depth: 3.2 km
										Grid Ref: 322.78 kmE 607.12 kmN									RMS: 0.30 secs
September 13 2013				Time: 09:05 52.1 UTC				Magnitude: 1.1 ML		Locality: ESKDALEMUIR,D & G									
	Lat: 55.550N			Lon: -3.667W				Depth: 4.9 km		Velocity model: Borders	Xnear: 50.0	Xfar: 150.0							
	Grid Ref: 294.84 kmE			629.74 kmN				RMS: 0.10 secs		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
	Locality: ABINGTON,S LANARKSHIRE									ESK	HZ	4.0	EP		03:03	30.99			-0.17
	Velocity model: Lownet			Xnear: 50.0	Xfar: 100.0					ESK	HN	4.0	ES		03:03	31.97			-0.09
	Comment: 6KM NNE OF ABINGTON									ESK	HN	4.0	IAML		03:03	32.29	119	0.10	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	ESK	HE	4.0	IAML		03:03	32.34	71	0.10	
ESK	HZ	39.1	EP		09:05	59.32			0.12	EBL	EZ	48.1	EP		03:03	38.56			0.08
ESK	HN	39.1	ES		09:06	04.38			-0.03	KESW	HZ	85.3	EP		03:03	44.26			-0.24
ESK	HN	39.1	IAML		09:06	04.45	34	0.14		KESW	HE	85.3	ES		03:03	55.57			0.70
ESK	HE	39.1	IAML		09:06	04.94	23	0.10		KESW	HE	85.3	IAML		03:03	56.91	2	0.25	
EBL	EZ	46.4	EP		09:06	00.20			-0.16	KESW	HN	85.3	IAML		03:03	57.60	2	0.26	
EDI	HZ	51.4	EP		09:06	01.05			-0.02	GALL	HZ	110.0	EP		03:03	48.30			-0.12
EDI	HE	51.4	ES		09:06	07.77			0.12										
EDI	HE	51.4	IAML		09:06	08.45	12	0.22		September 29 2013	Time: 08:54 08.8 UTC								Magnitude: 2.8 ML
EDI	HN	51.4	IAML		09:06	11.15	10	0.20		Lat: 59.575N	Lon: 1.461W								Depth: 17.1 km
ESY	EZ	77.8	EP		09:06	05.13			-0.08	Grid Ref: 595.44 kmE 1081.61 kmN									RMS: 0.30 secs
										Locality: NORTHERN NORTH SEA									
September 17 2013				Time: 03:22 19.9 UTC				Magnitude: 1.0 ML		Velocity model: North Sea	Xnear: 400.0	Xfar: 600.0							
	Lat: 51.866N			Lon: -5.030W				Depth: 10.3 km											

TABLE 2 : PHASE DATA

LRW	HZ	161.0	EP	08:54	31.80			0.05	RSC	SZ	120.0	EP	20:49	33.38			-0.26				
LRW	HN	161.0	ES	08:54	48.38			-0.14	LAW	HZ	134.0	EP	20:49	35.42			-0.25				
LRW	HN	161.0	IAML	08:54	53.11	134	0.22		LAW	HE	134.0	ES	20:49	51.92			0.27				
LRW	HE	161.0	IAML	08:54	54.70	96	0.22		LAW	HE	134.0	IAML	20:49	55.18	170	0.18					
WAL1	EZ	188.0	EP	9	08:54	41.96		6.77	LAW	HN	134.0	IAML	20:49	55.34	85	0.29					
BER	HZ	234.0	EP	08:54	40.75			-0.16	RRH	SZ	149.0	EP	20:49	37.75			-0.11				
BER	HE	234.0	ES	08:55	04.11			-0.27	PGB1	HZ	170.0	EP	20:49	41.13			0.24				
BER	HN	234.0	IAML	08:55	05.07	19	0.40		PGB1	HN	170.0	IAML	20:50	03.81	43	0.22					
BER	HE	234.0	IAML	08:55	05.44	18	0.42		PGB1	HE	170.0	IAML	20:50	04.25	62	0.32					
FOO	HZ	299.0	EP	08:54	48.68			-0.24	EDI	HZ	175.0	EP	20:49	42.06			0.46				
FOO	HN	299.0	ES	08:55	18.74			0.52	EAU	EZ	177.0	EP	20:49	42.38			0.51				
FOO	HE	299.0	IAML	08:55	19.55	22	0.14		ESY	EZ	194.0	EP	20:49	44.91			0.95				
FOO	HN	299.0	IAML	08:55	19.57	21	0.16		ESK	HZ	238.0	EP	20:49	49.12			-0.30				
BIGH	HZ	331.0	EP	08:54	53.06			0.15	CLGH	HZ	272.0	EP	20:49	52.45			-1.20				
BIGH	HE	331.0	IAML	08:55	46.47	29	0.34		CLGH	HN	272.0	IAML	20:50	33.07	29	0.26					
BIGH	HN	331.0	IAML	08:55	52.96	28	0.50		CLGH	HE	272.0	IAML	20:50	36.67	34	0.34					
DRUM	HZ	376.0	EP	08:54	58.58			0.03	October 5 2013 Time: 02:22 25.2 UTC Magnitude: 1.8 ML												
DRUM	HE	376.0	ES	08:55	35.13			0.25	Lat: 54.497N Lon: -3.006W Depth: 4.3 km												
DRUM	HE	376.0	IAML	08:55	37.56	34	0.18		Grid Ref: 334.85 kmE 511.78 kmN RMS: 0.00 secs												
DRUM	HN	376.0	IAML	08:55	38.79	43	0.30		Locality: GRASMERE,CUMBRIA												
RSC	SZ	405.0	EP	08:55	02.28			0.18	Velocity model: Borders Xnear: 50.0 Xfar: 100.0												
KAC	EZ	456.0	EP	08:55	08.09			-0.40	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES		
RRR	SZ	462.0	EP	08:55	08.95			-0.26	KESW	HZ	12.0	IP	D		02:22	27.79			0.00		
RRR	SN	462.0	ES	08:55	53.11			-0.23	KESW	HN	12.0	IAML			02:22	27.82	272	0.12			
RRR	SE	462.0	IAML	08:56	22.34	12	0.32		KESW	HE	12.0	ES			02:22	29.65			-0.01		
RRR	SN	462.0	IAML	08:56	26.70	16	0.52		KESW	HE	12.0	IAML			02:22	29.77	149	0.16			
ESY	EZ	474.0	EP	08:55	11.45			0.76	EDMD	HZ	76.9	EP			02:22	38.33			0.03		
INVG	HZ	478.0	EP	08:55	11.25			0.05	EDMD	HE	76.9	ES			02:22	47.61			-0.02		
INVG	HN	478.0	ES	08:55	56.24			-0.54	EDMD	HE	76.9	IAML			02:22	50.83	54	0.16			
INVG	HE	478.0	IAML	08:56	24.20	11	0.24		EDMD	HN	76.9	IAML			02:22	51.00	68	0.12			
KPL	HZ	484.0	EP	08:55	11.63			-0.26	ESK	HZ	92.1	EP			02:22	41.00			0.19		
KPL	HE	484.0	IAML	08:56	00.19	9	0.44		ESK	HE	92.1	ES			02:22	51.99			0.07		
KPL	HN	484.0	IAML	08:56	00.44	8	0.42		ESK	HN	92.1	IAML			02:22	53.57	14	0.12			
EDI	HE	492.0	IAML	08:56	03.07	12	0.46		ESK	HE	92.1	IAML			02:22	54.05	18	0.16			
EDI	HN	492.0	IAML	08:56	03.08	17	0.58		IOMK	HZ	105.0	EP			02:22	42.51			-0.34		
RRH	SZ	506.0	EP	08:55	15.41			0.74	IOMK	HN	105.0	ES			02:22	54.58			-0.83		
EAB	EZ	510.0	EP	08:55	15.17			-0.01	IOMK	HN	105.0	IAML			02:22	55.53	44	0.16			
PGB1	HE	548.0	IAML	08:56	16.40	9	0.48		IOMK	HE	105.0	IAML			02:22	56.60	18	0.14			
PGB1	HN	548.0	IAML	08:56	21.06	8	0.56		WIM	EZ	115.0	EP			02:22	44.04			-0.56		
LAW	HZ	549.0	EP	08:55	19.34			-0.62	GAL1	HZ	117.0	EP			02:22	44.69			-0.21		
LAW	HN	549.0	ES	08:56	11.06			-0.87	GAL1	HN	117.0	ES			02:22	57.71			-1.20		
LAW	HN	549.0	IAML	08:56	12.46	14	0.20		GAL1	HE	117.0	IAML			02:22	59.06	8	0.13			
LAW	HE	549.0	IAML	08:56	12.59	17	0.20		GAL1	HN	117.0	IAML			02:22	59.26	31	0.18			
EDMD	HZ	567.0	EP	08:55	21.68			-0.56	EBL	EZ	142.0	EP			02:22	49.27			0.62		
EDMD	HE	567.0	IAML	08:56	21.16	10	0.30		GDLE	HN	142.0	ES			02:23	06.57			1.23		
EDMD	HN	567.0	IAML	08:56	22.70	11	0.30		GDLE	HN	142.0	IAML			02:23	08.10	90	0.28			
KESW	HZ	620.0	EP	08:55	28.46			-0.38	GDLE	HE	142.0	IAML			02:23	08.91	28	0.18			
LBWR	HZ	715.0	EP	08:55	40.30			-0.29	FOEL	HZ	179.0	EP			02:22	52.89			-0.45		
September 30 2013 Time: 08:32 18.4 UTC Magnitude: 0.7 ML									FOEL	HN	179.0	ES			02:23	12.31			-1.03		
Lat: 53.268N Lon: -2.434W Depth: 13.0 km									FOEL	HE	179.0	IAML			02:23	16.27	14	0.42			
Grid Ref: 371.06 kmE 374.68 kmN RMS: 0.20 secs									FOEL	HN	179.0	IAML			02:23	19.48	13	0.43			
Locality: WINCHAM,CHESHIRE									October 7 2013 Time: 07:25 09.7 UTC Magnitude: 1.1 ML												
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									Lat: 57.413N Lon: -5.270W Depth: 5.3 km												
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Grid Ref: 203.62 kmE 840.55 kmN RMS: 0.30 secs										
FOEL	HZ	66.4	EP			08:32	29.65			-0.06	Locality: STRATHCARRON,HIGHLAND										
FOEL	HE	66.4	ES			08:32	38.06			0.13	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										
HLM1	HZ	88.6	EP			08:32	33.25			0.11	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
HLM1	HN	88.6	ES			08:32	43.67			-0.20	KAC	EZ	9.7	EP			07:25	12.06			0.13
HLM1	HN	88.6	IAML			08:32	44.53	2	0.12		KAC	EZ	9.7	ES			07:25	13.40			-0.16
HLM1	HE	88.6	IAML			08:32	45.88	2	0.15		KPL	HZ	24.4	EP			07:25	14.48			0.15
HPK	HN	93.7	ES			08:32	45.13			-0.03	KPL	HN	24.4	ES			07:25	17.49			-0.22
WLF1	HZ	131.0	EP			08:32	39.45			0.27	KPL	HE	24.4	IAML			07:25	18.02	14	0.09	
WLF1	HN	131.0	ES			08:32	54.03			-0.28	KPL	HN	24.4	IAML			07:25	18.02	26	0.11	
MCH1	HN	146.0	ES			08:32	58.38			0.19	LAW	HZ	129.0	EP			07:25	31.20			0.56
MCH1	HE	146.0	IAML			08:33	00.21	2	0.35		LAW	HN	129.0	IAML			07:25	47.88	7	0.12	
MCH1	HN	146.0	IAML			08:33	01.05	2	0.33		LAW	HE	129.0	IAML			07:25	48.44	7	0.11	
October 4 2013 Time: 20:49 13.8 UTC Magnitude: 2.4 ML									INVG	HZ	133.0	EP			07:25	31.26			0.01		
Lat: 57.338N Lon: -4.442W Depth: 2.6 km									INVG	HN	133.0	ES			07:25	46.30			-0.70		
Grid Ref: 253.03 kmE 830.11 kmN RMS: 0.40 secs									INVG	HN	133.0	IAML			07:25	48.39	4	0.17			
Locality: DRUMNADROCHIT,HIGHLAND									INVG	HE	133.0	IAML			07:25	48.79	4	0.12			
Velocity model: Lownet Xnear: 150.0 Xfar: 300.0									EAB	EZ	148.0	EP			07:25	33.85			0.45		
Comment: FELT DRUMNADROCHIT...									October 13 2013 Time: 20:54 01.2 UTC Magnitude: 1.0 ML												
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Lat: 53.207N Lon: -3.892W Depth: 7.2 km										
KAC	EZ	54.5	IP		C	20:49	23.62			0.19	Grid Ref: 273.65 kmE 369.47 kmN RMS: 0.10 secs										
KPL	HZ	72.9	IP		C	20:49	26.72			0.47	Locality: DOLGARROG,CONWY										
KPL	HN	72.9	ES			20:49	35.31			-0.05	Velocity model: LleyN Xnear: 80.0 Xfar: 200.0										
KPL	HN	72.9	IAML			20:49	39.12	127	0.28		Comment: FELT DOLGARROG... Intensity: 3										
KPL	HE	72.9	IAML			20:49	39.38	111	0.19		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
RRR	SZ	100.0	EP			20:49	30.68			0.22	YLL	EZ	20.1	IP		C	20:54	04.93			0.05
RRR	SE	100.0	ES			20:49	42.17			-0.48	WME	EZ	34.6	IP		D	20:54	07.30			0.08
RRR	SN	100.0	IAML			20:49	43.07	92	0.28		WLF1	HZ	34.9	EP			20:54	07.25			-0.01
RRR	SE	100.0	IAML			20:49	44.99	90	0.42		WLF1	HN	34.9	ES			20:54	11.25			-0.10
INVG	HZ	104.0	EP			20:49	30.74			-0.44	WLF1	HN	34.9	IAML			20:54	11.46	40	0.13	
INVG	HE	104.0	ES			20:49	43.11			-0.77	WLF1	HE	34.9	IAML			20:54	12.18	27	0.15	
INVG	HE	104.0	IAML			20:49	45.87	159	0.24		LLW	BZ	42.6	IP		D	20:54	08.27			-0.26
INVG	HN	104.0	IAML			20:49	46.46	120	0.23		LLW	BE	42.6	ES			20:54	13.6			

TABLE 2 : PHASE DATA

WPS	HZ	45.8	EP	20:54	09.03				-0.01	Velocity model: Lownet	Xnear: 150.0	Xfar: 300.0									
WPS	HN	45.8	ES	20:54	14.46				0.11	Comment: OFFSHORE LOCATION											
WPS	HN	45.8	IAML	20:54	14.66	10	0.22			STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
WPS	HE	45.8	IAML	20:54	14.83	13	0.13			CLGH	HZ	23.6	EP			09:45	18.35			0.06	
YRC	EZ	45.9	EP	20:54	09.08				0.02	CLGH	HN	23.6	ES			09:45	21.41			-0.19	
FOEL	HZ	58.3	EP	20:54	11.01				-0.12	CLGH	HE	23.6	IAML			09:45	21.78	35	0.11		
FOEL	HE	58.3	ES	20:54	17.98				0.13	CLGH	HN	23.6	IAML			09:45	21.89	43	0.12		
FOEL	HE	58.3	IAML	20:54	18.24	7	0.13			LAW	HZ	125.0	EP			09:45	34.19			-0.14	
FOEL	HN	58.3	IAML	20:54	19.17	11	0.22			LAW	HN	125.0	ES			09:45	49.14			-0.19	
HLM1	HZ	103.0	EP	20:54	18.12				-0.16	LAW	HE	125.0	IAML			09:45	49.17	6	0.23		
HLM1	HE	103.0	ES	20:54	30.09				0.23	LAW	HN	125.0	IAML			09:45	49.27	4	0.18		
HLM1	HE	103.0	IAML	20:54	30.43	4	0.22			PGB1	HZ	131.0	EP			09:45	35.71			0.50	
HLM1	HN	103.0	IAML	20:54	33.45	4	0.10			PGB1	HE	131.0	ES			09:45	50.81			-0.04	
MCH1	HZ	148.0	EP	20:54	24.91				-0.28	PGB1	HE	131.0	IAML			09:45	52.43	21	0.36		
										PGB1	HN	131.0	IAML			09:45	52.48	12	0.22		
October 15 2013 Time: 11:44 52.7 UTC Magnitude: 1.0 ML																					
Lat: 51.920N Lon: -2.784W										October 28 2013 Time: 11:09 19.6 UTC Magnitude: 2.8 ML											
Grid Ref: 346.09 kmE 224.95 kmN										Lat: 57.304N Lon: 2.311W											
Locality: ORCOP,HEREFORDSHIRE										Grid Ref: 659.62 kmE 831.91 kmN											
Velocity model: Lownet Xnear: 50.0 Xfar: 100.0										Locality: CENTRAL NORTH SEA											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Velocity model: North Sea Xnear: 500.0 Xfar: 1000.0										
MONM	HZ	9.1	EP			11:44	56.58			0.16	Comment: 265KM EAST ABERDEEN										
MONM	HE	9.1	ES			11:44	59.13			0.00	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
MONM	HE	9.1	IAML			11:44	59.54	40	0.16		DRUM	HZ	294.0	EP			11:10	00.99			0.34
MONM	HN	9.1	IAML			11:44	59.63	59	0.18		DRUM	HN	294.0	ES			11:10	30.86			0.22
MCH1	HZ	17.0	IP		D	11:44	57.11			-0.04	DRUM	HN	294.0	IAML			11:10	33.79	46	0.10	
MCH1	HE	17.0	ES			11:45	00.31			-0.09	DRUM	HE	294.0	IAML			11:10	34.52	54	0.18	
MCH1	HE	17.0	IAML			11:45	00.51	49	0.10		EDU	EZ	335.0	EP			11:10	06.49			0.75
MCH1	HN	17.0	IAML			11:45	00.55	28	0.10		ESY	EZ	339.0	EP			11:10	06.53			0.21
STRD	HZ	45.7	EP			11:45	00.88			-0.06	EDI	HZ	371.0	EP			11:10	10.25			0.05
STRD	HN	45.7	ES			11:45	06.93			-0.03	EDI	HN	371.0	IAML			11:10	51.63	17	0.18	
STRD	HN	45.7	IAML			11:45	07.13	16	0.11		EDI	HE	371.0	IAML			11:10	51.65	18	0.28	
STRD	HE	45.7	IAML			11:45	07.41	13	0.14		EBL	EZ	371.0	EP			11:10	10.19			-0.04
HLM1	HN	66.9	ES			11:45	12.41			0.15	LRW	HZ	375.0	EP			11:10	10.64			-0.02
HLM1	HE	66.9	IAML			11:45	12.70	4	0.12		LRW	HE	375.0	ES			11:10	48.20			0.25
HLM1	HN	66.9	IAML			11:45	13.00	4	0.14		LRW	HN	375.0	IAML			11:10	49.26	5	0.14	
											LRW	HE	375.0	IAML			11:10	50.32	5	0.09	
October 20 2013 Time: 17:06 44.6 UTC Magnitude: 1.5 ML																					
Lat: 53.555N Lon: -2.610W										EDMD HZ 383.0 EP 11:10 11.14 -0.53											
Grid Ref: 359.59 kmE 406.69 kmN										EDMD HE 383.0 IAML 11:10 52.50 26 0.26											
Locality: WIGAN,GTR MANCHESTER										EDMD HN 383.0 IAML 11:10 56.53 34 0.10											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										BIGH HZ 392.0 EP 11:10 12.81 0.01											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	BIGH HN 392.0 ES 11:10 51.12 -0.53										
LBWR	HZ	61.2	EP			17:06	55.17			0.13	BIGH HN 392.0 IAML 11:10 53.39 21 0.14										
LBWR	HN	61.2	ES			17:07	02.60			-0.03	BIGH HE 392.0 IAML 11:10 53.97 25 0.14										
LBWR	HN	61.2	IAML			17:07	03.40	24	0.20		INVG HZ 400.0 EP 11:10 14.22 0.44										
LBWR	HE	61.2	IAML			17:07	03.64	35	0.28		INVG HN 400.0 ES 11:10 53.45 0.10										
HPK	HZ	79.0	IP		C	17:06	57.89			0.12	INVG HE 400.0 IAML 11:10 56.11 5 0.28										
HPK	HE	79.0	ES			17:07	07.02			-0.33	INVG HN 400.0 IAML 11:10 57.61 16 0.14										
HPK	HN	79.0	IAML			17:07	08.43	35	0.18		ESK HZ 407.0 EP 11:10 14.18 -0.48										
HPK	HE	79.0	IAML			17:07	09.78	30	0.19		ESK HN 407.0 ES 11:10 55.04 0.16										
FOEL	HZ	83.9	EP			17:06	58.89			0.32	ESK HN 407.0 IAML 11:10 57.80 14 0.23										
FOEL	HN	83.9	ES			17:07	08.45			-0.29	ESK HE 407.0 IAML 11:10 57.88 22 0.30										
FOEL	HN	83.9	IAML			17:07	10.80	25	0.41		KAC EZ 458.0 EP 11:10 20.73 -0.27										
FOEL	HE	83.9	IAML			17:07	11.57	10	0.18		KPL HZ 480.0 EP 11:10 23.43 -0.26										
WME	EZ	114.0	EP			17:07	03.13			-0.01	KPL HN 480.0 ES 11:11 10.30 -0.20										
HLM1	HZ	117.0	EP			17:07	03.70			0.03	KPL HN 480.0 IAML 11:11 12.75 12 0.24										
KESW	HZ	120.0	EP			17:07	04.32			0.26	KPL HE 480.0 IAML 11:11 13.26 12 0.12										
WLF1	HZ	122.0	EP			17:07	04.20			-0.23	LAW	HZ	485.0	EP			11:10	24.19			-0.21
CWF	HZ	126.0	EP			17:07	05.12			0.17	LAW	HE	485.0	ES			11:11	11.72			0.00
WPS	HZ	127.0	EP			17:07	04.92			-0.10	LAW	HE	485.0	IAML			11:11	14.41	18	0.18	
											LAW	HN	485.0	IAML			11:11	15.79	12	0.14	
October 25 2013 Time: 01:28 20.8 UTC Magnitude: 1.4 ML																					
Lat: 57.592N Lon: -5.446W										November 3 2013 Time: 23:34 12.1 UTC Magnitude: 1.2 ML											
Grid Ref: 194.07 kmE 860.98 kmN										Lat: 52.114N Lon: -0.863W											
Locality: TORRIDON,HIGHLAND										Grid Ref: 477.85 kmE 246.84 kmN											
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										Locality: MILTON KEYNES,BUCKS											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Velocity model: Lownet Xnear: 80.0 Xfar: 160.0										
KAC	EZ	13.6	IP		C	01:28	23.46			-0.18	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
KPL	HZ	30.8	EP			01:28	26.72			0.21	CWF	HZ	75.8	EP			23:34	24.99			0.21
KPL	HE	30.8	ES			01:28	30.35			-0.32	CWF	HN	75.8	ES			23:34	33.89			-0.12
KPL	HE	30.8	IAML			01:28	30.88	57	0.18		CWF	HE	75.8	IAML			23:34	34.54	13	0.12	
KPL	HN	30.8	IAML			01:28	30.89	36	0.13		CWF	HN	75.8	IAML			23:34	34.67	6	0.22	
BIGH	HZ	135.0	EP			01:28	43.20			0.25	SWN1	HZ	93.0	EP			23:34	27.04			-0.41
BIGH	HE	135.0	ES			01:28	58.65			-0.45	SWN1	HE	93.0	ES			23:34	38.86			0.25
BIGH	HE	135.0	IAML			01:29	00.76	11	0.18		SWN1	HE	93.0	IAML			23:34	41.37	9	0.14	
BIGH	HN	135.0	IAML			01:29	01.44	12	0.17		SWN1	HN	93.0	IAML			23:34	41.57	10	0.20	
LAW	HZ	148.0	EP			01:28	45.75			0.91	WACR	HZ	122.0	EP			23:34	31.97			0.16
INVG	HZ	155.0	EP			01:28	46.36			0.52	WACR	HE	122.0	ES			23:34	46.10			-0.07
INVG	HN	155.0	ES			01:29	03.82			-0.28	HLM1	HN	145.0	ES			23:34	51.71			-0.20
INVG	HE	155.0	IAML			01:29	05.14	4	0.22		HLM1	HE	145.0	IAML			23:34	53.03	5	0.16	
INVG	HN	155.0	IAML			01:29	06.55	7	0.14		HLM1	HN	145.0	IAML			23:34	54.04	4	0.13	
EAB	EZ	170.0	EP			01:28	48.82			0.82	MCH1	HZ	147.0	EP			23:34	35.64			0.23
DRUM	HZ	194.0	EP			01:28	52.56			1.57	MCH1	HE	147.0	ES			23:34	52.37			-0.03
											MCH1	HE	147.0	IAML			23:34	52.97	5	0.18	
											MCH1	HN	147.0	IAML			23:34	53.37	5	0.17	
October 26 2013 Time: 09:45 13.8 UTC Magnitude: 1.3 ML																					
Lat: 55.261N Lon: -6.314W										November 23 2013 Time: 11:00 16.8 UTC Magnitude: 0.7 ML											
Grid Ref: 125.95 kmE 604.80 kmN										Lat: 52.409N Lon: -3.160W											
Locality: BALLINTOY,CO ANTRIM										Grid Ref: 321.10 kmE 279.67 kmN											
RMS: 0.10 secs										RMS: 0.10 secs											

TABLE 2 : PHASE DATA

Locality: CLUN,SHROPSHIRE Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: 8KM WEST OF CLUN										HPK HN 125.0 IAML 20:46 12.95 6 0.16 HPK HE 125.0 IAML 20:46 13.12 4 0.13	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	December 2 2013 Time: 10:53 02.4 UTC Magnitude: 1.3 ML Lat: 57.405N Lon: -5.476W Depth: 2.6 km Grid Ref: 191.21 kmE 840.27 kmN RMS: 0.30 secs Locality: LOCHCARRON,HIGHLAND Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: FELT LOCHCARRON Intensity: 2
MCH1	HZ	47.1	EP			11:00	25.03			-0.03	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
MCH1	HE	47.1	ES			11:00	31.07			-0.03	KPL HZ 12.9 IP D 10:53 05.13 0.09
MCH1	HN	47.1	IAML			11:00	31.18	10	0.24		KPL HN 12.9 ES 10:53 06.93 -0.05
MCH1	HE	47.1	IAML			11:00	31.19	17	0.40		KPL HN 12.9 IAML 10:53 07.37 58 0.10
FOEL	HZ	53.5	EP			11:00	26.24			0.14	KPL HE 12.9 IAML 10:53 07.47 52 0.10
FOEL	HE	53.5	ES			11:00	32.95			0.05	KAC EZ 14.9 IP D 10:53 05.04 -0.38
FOEL	HN	53.5	IAML			11:00	33.08	15	0.28		MDO EZ 67.0 EP 10:53 14.43 0.40
FOEL	HE	53.5	IAML			11:00	33.37	12	0.21		LAW E HZ 128.0 EP 10:53 23.80 0.42
LLW	BZ	59.7	EP			11:00	27.05			0.04	LAW E HE 128.0 ES 10:53 38.17 -0.52
LLW	BE	59.7	ES			11:00	34.26			-0.21	LAW E HN 128.0 IAML 10:53 40.64 11 0.34
LLW	BN	59.7	IAML			11:00	34.69	2	0.19		LAW E HE 128.0 IAML 10:53 40.72 12 0.14
LLW	BE	59.7	IAML			11:00	35.10	1	0.10		MCD EZ 135.0 EP 10:53 24.65 0.17
RSBS	HZ	120.0	EP			11:00	36.08			-0.25	MCD EE 135.0 ES 10:53 40.54 -0.07
RSBS	HN	120.0	ES			11:00	50.86			0.27	MCD EN 135.0 IAML 10:53 41.27 18 0.18
RSBS	HN	120.0	IAML			11:00	51.99	2	0.17		MCD EE 135.0 IAML 10:53 41.69 14 0.20
RSBS	HE	120.0	IAML			11:00	52.37	2	0.06		INVG HZ 140.0 EP 10:53 25.09 -0.08
YRC	EZ	134.0	EP			11:00	38.44			0.09	INVG HE 140.0 ES 10:53 41.77 -0.02
											INVG HN 140.0 IAML 10:53 42.47 3 0.16
											INVG HE 140.0 IAML 10:53 42.99 2 0.18
December 1 2013 Time: 09:48 20.6 UTC Magnitude: 3.4 ML Lat: 60.730N Lon: 1.687W Depth: 23.9 km Grid Ref: 601.01 kmE 1210.79 kmN RMS: 0.30 secs Locality: NORTHERN NORTH SEA Velocity model: North Sea Xnear: 400.0 Xfar: 600.0 Comment: 170KM ENE OF LERWICK										December 4 2013 Time: 07:57 29.9 UTC Magnitude: 2.3 ML Lat: 51.451N Lon: -8.924W Depth: 14.4 km Grid Ref: -80.82 kmE 195.27 kmN RMS: 0.30 secs Locality: CELTIC SEA Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0 Comment: FELT COUNTY CORK Intensity: 3	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
LRW	HZ	171.0	EP			09:48	45.02			-0.09	VAL BZ 106.0 EP 07:57 46.72 0.09
LRW	HE	171.0	ES			09:49	03.25			0.26	VAL BN 106.0 ES 07:57 58.81 -0.07
LRW	HE	171.0	IAML			09:49	13.61	373	0.30		IWEX BZ 180.0 EP 07:57 55.55 -0.40
LRW	HN	171.0	IAML			09:49	14.48	275	0.38		IWEX BE 180.0 ES 07:58 15.38 0.39
BER	HZ	204.0	IP	D		09:48	49.44			0.26	IWEX BN 180.0 IAML 07:58 16.35 33 0.50
BER	HN	204.0	ES			09:49	10.08			0.05	IWEX BE 180.0 IAML 07:58 16.45 21 0.30
BER	HE	204.0	IAML			09:49	11.38	105	0.23		RSBS HZ 294.0 EP 07:58 10.13 -0.11
BER	HN	204.0	IAML			09:49	11.38	166	0.27		RSBS HE 294.0 ES 07:58 39.67 -0.06
FOO	HZ	205.0	EP			09:48	49.18			-0.12	CCA1 HZ 296.0 EP 07:58 11.08 0.63
FOO	HN	205.0	ES			09:49	10.14			-0.09	CCA1 HE 296.0 ES 07:58 39.82 -0.26
FOO	HE	205.0	IAML			09:49	11.18	86	0.23		HTL HZ 314.0 EP 07:58 12.64 -0.06
FOO	HN	205.0	IAML			09:49	11.38	107	0.00		HTL HE 314.0 IAML 07:58 45.07 14 0.46
MLA1	EZ	393.0	EP			09:49	12.66			-0.04	HTL HN 314.0 IAML 07:58 45.91 10 0.40
BIGH	HZ	402.0	EP			09:49	13.90			0.08	MCH1 HZ 414.0 EP 07:58 25.04 -0.14
BIGH	HN	402.0	IAML			09:49	55.44	84	0.32		MCH1 HN 414.0 IAML 07:59 09.01 4 0.30
BIGH	HE	402.0	IAML			09:49	55.67	157	0.35		MCH1 HE 414.0 IAML 07:59 09.84 4 0.28
MCD	EZ	450.0	EP			09:49	19.90			0.10	
MCD	EN	450.0	IAML			09:50	04.57	114	0.26		
MCD	EE	450.0	IAML			09:50	06.33	122	0.28		
DRUM	HZ	489.0	EP			09:49	24.67			0.10	
DRUM	HE	489.0	ES			09:50	10.67			-0.58	
DRUM	HE	489.0	IAML			09:50	12.75	99	0.16		
DRUM	HN	489.0	IAML			09:50	13.63	128	0.37		
MDO	EZ	504.0	EP			09:49	26.39			-0.13	
KAC	EZ	538.0	EP			09:49	29.77			-0.90	
EDU	EZ	540.0	EP			09:49	30.67			-0.25	
KPL	HZ	565.0	EP			09:49	33.17			-0.91	
KPL	HN	565.0	ES			09:50	26.69			-1.02	
KPL	HN	565.0	IAML			09:50	29.24	29	0.24		
KPL	HE	565.0	IAML			09:50	30.90	21	0.43		
INVG	HZ	583.0	EP			09:49	35.91			-0.44	
ESY	EZ	592.0	EP			09:49	37.15			-0.28	
EAB	EZ	615.0	EP			09:49	39.96			-0.38	
EBL	EZ	618.0	EP			09:49	40.63			-0.01	
LAW E	HZ	646.0	EP			09:49	43.00			-1.15	
LAW E	HN	646.0	ES			09:50	44.09			-1.04	
LAW E	HN	646.0	IAML			09:50	46.45	45	0.70		
LAW E	HE	646.0	IAML			09:50	47.21	36	0.32		
EDMD	HZ	692.0	EP			09:49	49.20			-0.56	
December 1 2013 Time: 20:45 36.5 UTC Magnitude: 0.9 ML Lat: 55.082N Lon: -1.761W Depth: 4.1 km Grid Ref: 415.26 kmE 576.43 kmN RMS: 0.30 secs Locality: MORPETH,NORTHUMBERLAND Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: 10KM SSW OF MORPETH										December 10 2013 Time: 07:57 08.8 UTC Magnitude: 1.4 ML Lat: 53.210N Lon: -1.007W Depth: 1.1 km Grid Ref: 466.31 kmE 368.60 kmN RMS: 0.60 secs Locality: NEW OLLERTON,NOTTS Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: C/F	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
EDMD	HZ	30.7	EP			20:45	42.14			-0.08	LBWR HZ 52.4 EP 07:57 18.25 -0.22
EDMD	HE	30.7	ES			20:45	46.32			-0.05	LBWR HN 52.4 ES 07:57 25.43 -0.09
EDMD	HE	30.7	IAML			20:45	46.94	20	0.15		LBWR HN 52.4 IAML 07:57 26.69 34 0.28
EDMD	HN	30.7	IAML			20:45	46.95	11	0.10		LBWR HE 52.4 IAML 07:57 26.96 22 0.18
GDLE	HZ	95.4	EP			20:45	52.38			-0.07	LMK HE 53.0 ES 07:57 25.40 -0.24
ESK	HZ	95.6	EP			20:45	52.58			0.08	CWF HZ 56.2 EP 07:57 18.98 -0.05
ESK	HN	95.6	ES			20:46	03.95			-0.20	CWF HN 56.2 ES 07:57 26.35 -0.15
ESK	HN	95.6	IAML			20:46	04.91	3	0.17		CWF HE 56.2 IAML 07:57 30.36 8 0.12
ESK	HE	95.6	IAML			20:46	05.19	2	0.12		CWF HN 56.2 IAML 07:57 26.45 7 0.12
KESW	HZ	102.0	EP			20:45	53.53			-0.01	HPK HE 92.8 ES 07:57 35.90 -0.42
KESW	HN	102.0	ES			20:46	06.16			0.21	HPK HN 92.8 IAML 07:57 39.89 33 0.20
HPK	HZ	125.0	EP			20:45	57.75			0.65	HPK HE 92.8 IAML 07:57 41.59 23 0.24
HPK	HN	125.0	ES			20:46	11.72			-0.39	GDLE HN 135.0 ES 07:57 49.31 1.57

TABLE 2 : PHASE DATA

HLM1	HZ	148.0	EP	07:57	34.39			1.28	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	
HLM1	HE	148.0	ES	07:57	51.51			0.66	LBWR	HZ	47.8	EP		21:24	17.39			-0.29	
HLM1	HN	148.0	IAML	07:57	55.53	13	0.26		LBWR	HN	47.8	ES		21:24	23.94			0.02	
HLM1	HE	148.0	IAML	07:57	55.82	18	0.26		LBWR	HN	47.8	IAML		21:24	26.08	30	0.27		
									LBWR	HE	47.8	IAML		21:24	26.22	17	0.22		
December 10 2013				Time: 19:12 16.3 UTC		Magnitude: 0.9 ML													
Lat: 53.207N				Lon: -1.022W		Depth: 1.1 km												-0.16	
Grid Ref: 465.31 kmE 368.25 kmN						RMS: 0.20 secs												0.12	
Locality: NEW OLLERTON,NOTTS																			
Velocity model: Lownet				Xnear: 100.0		Xfar: 150.0												0.82	
Comment: C/F																		-0.46	
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	HPK	HE	91.7	ES		21:24	35.21			
LBWR	HZ	51.6	EP		19:12	25.34			-0.22	HPK	HN	91.7	IAML		21:24	39.89	28	0.23	
LBWR	HE	51.6	ES		19:12	32.41			0.07	HPK	HE	91.7	IAML		21:24	40.21	19	0.22	
LBWR	HN	51.6	IAML		19:12	33.93	20	0.29		WACR	HZ	127.0	EP		21:24	29.42		-0.52	
LBWR	HE	51.6	IAML		19:12	33.96	10	0.25		GDLE	HE	138.0	ES		21:24	48.63		0.82	
CWF	HZ	55.6	EP		19:12	26.22			0.07	GDLE	HN	138.0	IAML		21:24	49.98	7	0.31	
CWF	HN	55.6	ES		19:12	33.32			-0.04	GDLE	HE	138.0	IAML		21:24	51.55	7	0.18	
CWF	HE	55.6	IAML		19:12	35.10	4	0.40		FOEL	HZ	145.0	EP		21:24	34.04		1.42	
CWF	HN	55.6	IAML		19:12	36.01	6	0.27		December 16 2013				Time: 02:31 59.5 UTC		Magnitude: 1.7 ML			
HPK	HZ	92.6	EP		19:12	32.01			0.12	Lat: 53.208N				Lon: -1.038W		Depth: 1.1 km			
HLM1	HZ	147.0	EP		19:12	41.21			1.05	Grid Ref: 464.24 kmE 368.34 kmN						RMS: 0.40 secs			
December 12 2013				Time: 03:01 12.1 UTC		Magnitude: 1.5 ML													
Lat: 53.206N				Lon: -1.041W		Depth: 1.2 km													
Grid Ref: 464.05 kmE 368.12 kmN						RMS: 0.60 secs													
Locality: NEW OLLERTON,NOTTS																			
Velocity model: Lownet				Xnear: 100.0		Xfar: 200.0													
Comment: C/F,FELT N OLLERTON						Intensity: 3													
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HZ	50.5	EP		03:01	20.70			-0.46	LBWR	HZ	46.8	EP		02:32	08.01			0.07
LBWR	HN	50.5	ES		03:01	28.00			0.22	LBWR	HN	46.8	ES		02:32	14.14			0.05
LBWR	HN	50.5	IAML		03:01	29.49	62	0.25		LBWR	HN	46.8	IAML		02:32	16.67	70	0.25	
LBWR	HE	50.5	IAML		03:01	29.63	37	0.20		LBWR	HE	46.8	IAML		02:32	16.69	43	0.35	
CWF	HZ	55.0	IP	D	03:01	21.68			-0.15	CWF	HZ	53.1	EP		02:32	08.71			-0.17
CWF	HE	55.0	ES		03:01	28.66			-0.29	CWF	HN	53.1	ES		02:32	15.77			0.04
CWF	HN	55.0	IAML		03:01	29.19	12	0.13		CWF	HN	53.1	IAML		02:32	16.35	14	0.12	
CWF	HE	55.0	IAML		03:01	29.50	12	0.40		CWF	HE	53.1	IAML		02:32	19.77	13	0.23	
HPK	HZ	92.2	EP		03:01	27.51			-0.08	HPK	HZ	91.0	EP		02:32	14.86			0.09
HPK	HE	92.2	ES		03:01	38.53			-0.39	HPK	HN	91.0	ES		02:32	25.66			-0.25
HPK	HN	92.2	IAML		03:01	43.30	59	0.19		HPK	HN	91.0	IAML		02:32	30.47	72	0.21	
HPK	HE	92.2	IAML		03:01	44.38	41	0.22		HPK	HE	91.0	IAML		02:32	31.56	48	0.25	
GDLE	HZ	136.0	EP		03:01	35.36			1.00	GDLE	HZ	137.0	EP		02:32	22.69			0.83
HLM1	HZ	146.0	EP		03:01	37.09			1.32	GDLE	HE	137.0	ES		02:32	39.20			1.01
FOEL	HZ	149.0	EP		03:01	37.56			1.31	GDLE	HN	137.0	IAML		02:32	40.41	48	0.24	
MCH1	HZ	189.0	EP		03:01	42.87			1.25	GDLE	HE	137.0	IAML		02:32	42.06	15	0.26	
MONM	HZ	194.0	EP		03:01	43.82			1.64	HLM1	HZ	141.0	EP		02:32	23.77			1.27
December 12 2013				Time: 20:06 24.9 UTC		Magnitude: 1.6 ML													
Lat: 53.209N				Lon: -1.062W		Depth: 1.1 km													
Grid Ref: 462.64 kmE 368.43 kmN						RMS: 0.30 secs													
Locality: NEW OLLERTON,NOTTS																			
Velocity model: Lownet				Xnear: 100.0		Xfar: 150.0													
Comment: C/F,FELT N OLLERTON						Intensity: 3													
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	December 17 2013				Time: 15:06 39.3 UTC		Magnitude: 1.5 ML			
LBWR	HZ	49.1	EP		20:06	33.37			-0.23	Lat: 53.218N				Lon: -1.044W		Depth: 1.2 km			
LBWR	HE	49.1	ES		20:06	40.07			0.16	Grid Ref: 463.83 kmE 369.45 kmN						RMS: 0.50 secs			
LBWR	HN	49.1	IAML		20:06	41.65	39	0.34		Locality: NEW OLLERTON,NOTTS									
LBWR	HE	49.1	IAML		20:06	41.98	27	0.42		Velocity model: Lownet				Xnear: 100.0		Xfar: 200.0			
CWF	HZ	54.9	EP		20:06	34.29			-0.18	Comment: C/F,FELT N OLLERTON						Intensity: 3			
CWF	HN	54.9	ES		20:06	41.50			0.08	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
CWF	HN	54.9	IAML		20:06	41.45	9	0.40		LBWR	HZ	49.7	EP		15:06	48.07			-0.16
CWF	HE	54.9	IAML		20:06	41.78	9	0.38		LBWR	HN	49.7	ES		15:06	54.42			-0.35
HPK	HZ	91.3	EP		20:06	40.50			0.38	LBWR	HE	49.7	IAML		15:06	56.31	26	0.20	
HPK	HE	91.3	ES		20:06	50.90			-0.29	LBWR	HN	49.7	IAML		15:06	56.56	48	0.26	
HPK	HN	91.3	IAML		20:06	55.66	36	0.20		CWF	HZ	56.2	EP		15:06	48.98			-0.24
HPK	HE	91.3	IAML		20:06	56.73	26	0.24		CWF	HE	56.2	ES		15:06	56.18			-0.30
WACR	HZ	126.0	EP		20:06	45.39			-0.03	CWF	HN	56.2	IAML		15:06	57.53	11	0.36	
WACR	HE	126.0	IAML		20:07	03.72	21	0.80		CWF	HE	56.2	IAML		15:06	59.27	9	0.21	
WACR	HN	126.0	IAML		20:07	04.86	11	0.22		HPK	HZ	90.9	EP		15:06	54.90			0.31
GDLE	HZ	136.0	EP		20:06	47.76			0.83	HPK	HE	90.9	ES		15:07	05.64			-0.13
GDLE	HE	136.0	ES		20:07	02.99			0.02	HPK	HN	90.9	IAML		15:07	10.38	43	0.20	
GDLE	HN	136.0	IAML		20:07	05.73	25	0.28		HPK	HE	90.9	IAML		15:07	11.46	28	0.24	
GDLE	HE	136.0	IAML		20:07	07.04	8	0.28		HLM1	HZ	146.0	EP		15:07	03.83			0.79
HLM1	HZ	145.0	EP		20:06	48.93			0.72	HLM1	HN	146.0	ES		15:07	21.53			1.14
HLM1	HE	145.0	ES		20:07	06.09			0.90	HLM1	HN	146.0	IAML		15:07	25.24	16	0.24	
HLM1	HN	145.0	IAML		20:07	10.66	14	0.28		HLM1	HE	146.0	IAML		15:07	25.68	22	0.26	
HLM1	HE	145.0	IAML		20:07	10.96	19	0.26		FOEL	HZ	149.0	EP		15:07	04.74			1.27
FOEL	HZ	148.0	EP		20:06	49.40			0.75	FOEL	HE	149.0	IAML		15:07	25.08	12	0.36	
FOEL	HN	148.0	IAML		20:07	10.26	12	0.34		FOEL	HN	149.0	IAML		15:07	25.15	13	0.52	
FOEL	HE	148.0	IAML		20:07	10.35	14	0.40		December 18 2013				Time: 16:35 15.0 UTC		Magnitude: 1.2 ML			
MCH1	HZ	188.0	EP		20:06	55.00			0.96	Lat: 53.211N				Lon: -1.051W		Depth: 1.2 km			
December 13 2013				Time: 21:24 09.1 UTC		Magnitude: 1.2 ML													
Lat: 53.210N				Lon: -1.042W		Depth: 1.2 km													
Grid Ref: 463.97 kmE 368.56 kmN						RMS: 0.50 secs													
Locality: NEW OLLERTON,NOTTS																			
Velocity model: Lownet				Xnear: 100.0		Xfar: 150.0													
Comment: C/F																			
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HZ	49.6	EP		16:35	24.15			0.09	LBWR	HZ	49.6	EP		16:35	24.15			0.09
LBWR	HN	49.6	ES		16:35	30.53			-0.13	LBWR	HN	49.6	ES		16:35	30.53			-0.13
LBWR	HN	49.6	IAML		16:35	32.76			0.24	LBWR	HN	49.6	IAML		16:35	32.76	53	0.24	
LBWR	HE	49.6	IAML		16:35	32.82	36	0.34		LBWR	HE	49.6	IAML		16:35	32.82	36	0.34	

TABLE 2 : PHASE DATA

CWF	HZ	55.3	EP	16:35	25.07			0.15		HLM1	HE	146.0	IAML	21:24	03.57	22	0.26
CWF	HN	55.3	ES	16:35	32.03			-0.12									
CWF	HN	55.3	IAML	16:35	32.52	10	0.14			December 21 2013				Time: 10:37 37.7 UTC		Magnitude: 1.0 ML	
CWF	HE	55.3	IAML	16:35	35.89	8	0.21			Lat: 53.150N				Lon: -5.385W		Depth: 12.2 km	
HLM1	HZ	145.0	EP	16:35	39.68			0.91		Grid Ref: 173.68 kmE				366.81 kmN		RMS: 0.30 secs	
FOEL	HZ	148.0	EP	16:35	40.82			1.60		Locality: IRISH SEA							
MCH1	HZ	189.0	EP	16:35	46.59			1.93		Velocity model: Lownet				Xnear: 100.0		Xfar: 200.0	
										Comment: 50KM WSW OF HOLYHEAD							
December 19 2013				Time: 09:30 25.0 UTC				Magnitude: 1.9 ML		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL PERI RES
				Lat: 52.045N				Depth: 4.5 km		WLF1	HZ	67.8	EP		10:37	48.79	-0.25
				Grid Ref: 286.31 kmE				RMS: 0.30 secs		WLF1	HE	67.8	ES		10:37	57.29	-0.05
				Locality: LLANWRTYD WELLS,POWYS						WLF1	HE	67.8	IAML		10:37	57.82	7 0.61
				Velocity model: Mid Wales				Xnear: 100.0		WLF1	HN	67.8	IAML		10:37	59.11	9 0.32
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	WME	EZ	77.2	EP		10:37	50.57	0.17
MCH1	HZ	45.6	EP		09:30	33.15			0.26	YLL	EZ	81.3	EP		10:37	51.25	0.26
MCH1	HE	45.6	ES		09:30	38.62			0.06	LLW	BE	120.0	ES		10:38	10.23	-0.10
MCH1	HE	45.6	IAML		09:30	38.77	216	0.10		FOEL	HZ	150.0	EP		10:38	00.09	-0.55
MCH1	HN	45.6	IAML		09:30	38.85	251	0.20		FOEL	HN	150.0	ES		10:38	17.73	0.32
HLM1	HZ	74.7	EP		09:30	37.86			0.14								
HLM1	HE	74.7	ES		09:30	46.40			-0.46								
HLM1	HN	74.7	IAML		09:30	47.45	40	0.38		December 22 2013				Time: 10:19 28.4 UTC		Magnitude: 1.1 ML	
HLM1	HE	74.7	IAML		09:30	47.66	28	0.26		Lat: 53.209N				Lon: -1.005W		Depth: 1.1 km	
RSBS	HZ	75.3	EP		09:30	37.69			-0.11	Grid Ref: 466.44 kmE				368.49 kmN		RMS: 0.40 secs	
RSBS	HE	75.3	ES		09:30	46.89			-0.13	Locality: NEW OLLERTON,NOTTS							
RSBS	HN	75.3	IAML		09:30	48.41	16	0.24		Velocity model: Lownet				Xnear: 100.0		Xfar: 200.0	
RSBS	HE	75.3	IAML		09:30	52.08	14	0.18		Comment: C/F							
OLDB	HZ	87.5	EP		09:30	39.87			0.07	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL PERI RES
OLDB	HN	87.5	ES		09:30	50.20			-0.25	LBWR	HZ	52.6	EP		10:19	38.37	0.02
OLDB	HN	87.5	IAML		09:30	50.80	241	0.36		LBWR	HE	52.6	ES		10:19	45.39	-0.18
OLDB	HE	87.5	IAML		09:30	53.17	126	0.36		LBWR	HN	52.6	IAML		10:19	46.65	24 0.38
FOEL	HZ	98.9	EP		09:30	42.18			0.46	LBWR	HE	52.6	IAML		10:19	46.81	15 0.37
FOEL	HE	98.9	ES		09:30	53.64			-0.11	CWF	HZ	56.2	EP		10:19	39.08	0.21
FOEL	HE	98.9	IAML		09:30	57.12	77	0.36		CWF	HN	56.2	ES		10:19	46.14	-0.34
FOEL	HN	98.9	IAML		09:30	57.30	47	0.36		CWF	HN	56.2	IAML		10:19	46.52	5 0.12
WLF1	HE	147.0	ES		09:31	06.54			0.07	CWF	HE	56.2	IAML		10:19	50.90	5 0.24
WLF1	HN	147.0	IAML		09:31	07.53	29	0.18		HLM1	HE	148.0	ES		10:20	11.98	1.10
WLF1	HE	147.0	IAML		09:31	07.68	24	0.16		HLM1	HE	148.0	IAML		10:20	14.16	10 0.34
WME	EZ	157.0	EP		09:30	50.88			0.35	HLM1	HN	148.0	IAML		10:20	15.47	8 0.28
WPS	HZ	161.0	EP		09:30	51.26			0.05								
CWF	HZ	178.0	EP		09:30	52.78			-0.58	December 26 2013				Time: 01:24 32.7 UTC		Magnitude: 0.9 ML	
CWF	HE	178.0	IAML		09:31	14.59	9	0.12		Lat: 52.892N				Lon: -3.747W		Depth: 11.8 km	
CWF	HN	178.0	IAML		09:31	14.63	13	0.16		Grid Ref: 282.48 kmE				334.19 kmN		RMS: 0.30 secs	
										Locality: BALA,GWYNEDD							
										Velocity model: Lleyrn				Xnear: 80.0		Xfar: 200.0	
										Comment: 10KM WSW OF BALA							
December 19 2013				Time: 10:27 21.8 UTC				Magnitude: 1.3 ML		STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL PERI RES
				Lat: 53.218N				Depth: 1.2 km		LLW	BZ	7.3	EP		01:24	35.27	0.18
				Grid Ref: 465.23 kmE				RMS: 0.20 secs		LLW	BN	7.3	ES		01:24	36.79	0.09
				Locality: NEW OLLERTON,NOTTS						LLW	BN	7.3	IAML		01:24	37.09	45 0.15
				Velocity model: Lownet				Xnear: 100.0		LLW	BE	7.3	IAML		01:24	37.09	49 0.10
				Comment: C/F						FOEL	HZ	36.8	IP	C	01:24	39.21	-0.04
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	FOEL	HN	36.8	ES		01:24	43.33	-0.36
LBWR	HZ	51.0	EP		10:27	30.91			-0.03	FOEL	HN	36.8	IAML		01:24	44.04	13 0.10
LBWR	HE	51.0	ES		10:27	37.63			0.01	FOEL	HE	36.8	IAML		01:24	44.11	32 0.19
LBWR	HN	51.0	IAML		10:27	39.48	37	0.25		YLL	EZ	39.6	EP		01:24	39.73	0.06
LBWR	HE	51.0	IAML		10:27	39.52	18	0.35		WLF1	HZ	62.0	EP		01:24	43.24	0.02
CWF	HZ	56.6	EP		10:27	31.80			0.02	WLF1	HE	62.0	ES		01:24	50.46	0.10
CWF	HE	56.6	ES		10:27	39.06			-0.01	WLF1	HN	62.0	IAML		01:24	51.08	8 0.06
CWF	HN	56.6	IAML		10:27	41.29	8	0.28		WLF1	HE	62.0	IAML		01:24	51.17	8 0.14
CWF	HE	56.6	IAML		10:27	42.08	6	0.20		WME	EZ	67.4	EP		01:24	44.20	0.15
HPK	HN	91.5	ES		10:27	48.44			0.00	HLM1	HZ	71.8	EP		01:24	44.87	0.10
HPK	HN	91.5	IAML		10:27	53.29	34	0.20		HLM1	HN	71.8	ES		01:24	53.22	0.27
HPK	HE	91.5	IAML		10:27	54.27	25	0.24		HLM1	HE	71.8	IAML		01:24	53.51	3 0.18
HLM1	HZ	147.0	EP		10:27	47.22			1.52	HLM1	HN	71.8	IAML		01:24	53.83	4 0.11
HLM1	HN	147.0	ES		10:28	04.33			1.17	WPS	HZ	75.7	EP		01:24	45.12	-0.20
HLM1	HN	147.0	IAML		10:28	08.31	12	0.29		RSBS	HZ	125.0	EP		01:24	51.98	-0.90
HLM1	HE	147.0	IAML		10:28	08.49	17	0.26									
FOEL	HZ	150.0	EP		10:27	47.54			1.39								
FOEL	HN	150.0	IAML		10:28	07.80	11	0.32		December 26 2013				Time: 01:37 35.4 UTC		Magnitude: 1.8 ML	
FOEL	HE	150.0	IAML		10:28	08.08	10	0.33		Lat: 49.196N				Lon: -2.072W		Depth: 7.3 km	
MCH1	HZ	191.0	EP		10:27	53.34			1.81	Grid Ref: 394.75 kmE				-78.21 kmN		RMS: 0.10 secs	
										Locality: JERSEY,CHANNEL ISLANDS							
December 20 2013				Time: 21:23 17.2 UTC				Magnitude: 1.4 ML		Velocity model: Lownet				Xnear: 50.0		Xfar: 150.0	
				Lat: 53.201N				Depth: 1.2 km		Comment: FELT JERSEY							
				Grid Ref: 464.79 kmE				RMS: 0.60 secs									
				Locality: NEW OLLERTON,NOTTS													
				Velocity model: Lownet				Xnear: 100.0									
				Comment: C/F													
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL PERI RES
LBWR	HZ	51.4	EP		21:23	26.40			0.01	JRS	EZ	1.6	EP		01:37	36.88	0.04
LBWR	HN	51.4	ES		21:23	32.62			-0.48	JRS	EN	1.6	ES		01:37	38.02	0.10
LBWR	HN	51.4	IAML		21:23	34.47	47	0.26		JRS	EE	1.6	IAML		01:37	38.30	393 0.11
LBWR	HE	51.4	IAML		21:23	34.65	27	0.44		JRS	EN	1.6	IAML		01:37	38.32	358 0.10
CWF	HZ	54.7	EP		21:23	26.78			-0.10	JDC	EZ	1.8	EP		01:37	36.81	-0.04
CWF	HN	54.7	ES		21:23	33.64			-0.31	JDC	EZ	1.8	EP		01:37	36.79	-0.05
CWF	HN	54.7	IAML		21:23	34.21	9	0.12		JDC	EN	1.8	ES		01:37	37.86	-0.06
CWF	HE	54.7	IAML		21:23	34.40	9	0.38		JDC	EN	1.8	ES		01:37	37.96	0.03
HPK	HN	93.0	ES		21:23	44.32			0.10	JQE	EZ	2.5	IP	C	01:37	36.88	-0.01
HLM1	HZ	146.0	EP		21:23	42.34			1.44	JLP	EZ	6.3	IP	D	01:37	37.29	0.03
HLM1	HN	146.0	ES		21:23	59.43			1.23	JLP	EZ	6.3	ES		01:37	38.67	0.02
HLM1	HN	146.0	IAML		21:24	03.28	16	0.28		JSA	HZ	7.3	IP	C	01:37	37.39	0.01
										JSA	HN	7.3	ES		01:37	38.81	-0.04
										JSA	HE	7.3	IAML		01:37	38.93	1541 0.14
										JSA	HZ	7.3	IAML		01:37	39.06	780 0.10
										JSA	HN	7.3	IAML		01:37	39.52	396 0.12

TABLE 2 : PHASE DATA

JVM EZ 10.1 IP D 01:37 37.76 -0.01
 JVM EZ 10.1 ES 01:37 39.47 -0.05
 ROSF BZ 130.0 EP 01:37 56.62 0.24
 ROSF BN 130.0 ES 01:38 12.10 0.38

Locality: NEW OLLERTON,NOTTS
 Velocity model: Lownet Xnear: 100.0 Xfar: 200.0
 Comment: C/F

December 28 2013 Time: 23:45 56.9 UTC Magnitude: 1.5 ML
 Lat: 53.189N Lon: -1.048W Depth: 1.2 km
 Grid Ref: 463.60 kmE 366.22 kmN RMS: 0.50 secs

Locality: NEW OLLERTON,NOTTS
 Velocity model: Lownet Xnear: 100.0 Xfar: 200.0

Comment: C/F,FELT N OLLERTON Intensity: 3

STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HZ	50.9	EP		23:46	05.85			-0.39
LBWR	HE	50.9	ES		23:46	12.52			-0.56
LBWR	HE	50.9	IAML		23:46	14.02	27	0.18	
LBWR	HN	50.9	IAML		23:46	14.28	45	0.26	
CWF	HZ	53.1	EP		23:46	06.61			0.06
CWF	HN	53.1	ES		23:46	13.77			0.16
CWF	HN	53.1	IAML		23:46	14.08	8	0.15	
CWF	HE	53.1	IAML		23:46	15.58	8	0.44	
HPK	HZ	93.7	EP		23:46	12.89			0.04
HPK	HN	93.7	IAML		23:46	27.48	36	0.20	
HPK	HE	93.7	IAML		23:46	29.17	24	0.24	
GDLE	HN	138.0	ES		23:46	37.27			0.95
GDLE	HN	138.0	IAML		23:46	38.27	25	0.24	
GDLE	HE	138.0	IAML		23:46	39.47	9	0.25	
FOEL	HZ	148.0	EP		23:46	22.37			1.21
FOEL	HE	148.0	IAML		23:46	42.80	13	0.36	
FOEL	HN	148.0	IAML		23:46	44.26	14	0.34	

December 29 2013 Time: 15:12 38.9 UTC Magnitude: 0.9 ML
 Lat: 52.620N Lon: -2.917W Depth: 11.5 km
 Grid Ref: 337.93 kmE 302.90 kmN RMS: 0.10 secs

Locality: PONTESBURY,SHROPSHIRE
 Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0

STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
HLM1	HZ	11.5	EP		15:12	41.66			-0.06
HLM1	HN	11.5	ES		15:12	43.82			0.04
HLM1	HN	11.5	IAML		15:12	43.90	43	0.10	
HLM1	HE	11.5	IAML		15:12	44.38	37	0.17	
FOEL	HZ	35.6	EP		15:12	45.25			-0.01
MCH1	HZ	69.5	EP		15:12	50.76			0.01
MCH1	HN	69.5	ES		15:12	59.31			-0.01
MCH1	HN	69.5	IAML		15:12	59.68	7	0.19	
MCH1	HE	69.5	IAML		15:12	59.87	7	0.22	
WLF1	HZ	124.0	EP		15:12	59.18			0.15
WLF1	HN	124.0	ES		15:13	13.50			-0.06
WPS	HZ	137.0	EP		15:13	00.98			0.01

December 30 2013 Time: 00:20 34.9 UTC Magnitude: 1.2 ML
 Lat: 53.219N Lon: -1.010W Depth: 1.0 km
 Grid Ref: 466.10 kmE 369.59 kmN RMS: 0.50 secs

STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HZ	51.8	EP		00:20	44.57			0.04
LBWR	HN	51.8	ES		00:20	51.24			-0.28
LBWR	HN	51.8	IAML		00:20	53.00	22	0.24	
LBWR	HE	51.8	IAML		00:20	53.14	13	0.29	
CWF	HZ	57.0	EP		00:20	45.31			0.00
CWF	HN	57.0	ES		00:20	52.51			-0.37
CWF	HN	57.0	IAML		00:20	52.80	4	0.12	
CWF	HE	57.0	IAML		00:20	52.98	3	0.13	
HPK	HN	91.8	ES		00:21	02.19			-0.02
HPK	HN	91.8	IAML		00:21	06.30	19	0.23	
HPK	HE	91.8	IAML		00:21	06.40	12	0.31	
HLM1	HZ	148.0	EP		00:21	00.70			1.39
HLM1	HE	148.0	ES		00:21	18.07			0.98
HLM1	HE	148.0	IAML		00:21	20.68	9	0.33	
HLM1	HN	148.0	IAML		00:21	21.71	8	0.26	

December 31 2013 Time: 21:53 25.3 UTC Magnitude: 0.9 ML
 Lat: 53.221N Lon: -1.001W Depth: 1.1 km
 Grid Ref: 466.69 kmE 369.82 kmN RMS: 0.30 secs

Locality: NEW OLLERTON,NOTTS
 Velocity model: Lownet Xnear: 100.0 Xfar: 200.0

Comment: C/F

STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES
LBWR	HZ	52.2	EP		21:53	35.01			0.14
LBWR	HN	52.2	ES		21:53	41.64			-0.21
LBWR	HN	52.2	IAML		21:53	42.93	15	0.34	
LBWR	HE	52.2	IAML		21:53	44.12	11	0.22	
CWF	HZ	57.5	EP		21:53	35.68			0.02
CWF	HN	57.5	IAML		21:53	36.00	2	0.10	
CWF	HE	57.5	ES		21:53	43.03			-0.18
CWF	HE	57.5	IAML		21:53	43.20	2	0.19	
HLM1	HE	149.0	ES		21:54	08.29			0.85
HLM1	HN	149.0	IAML		21:54	12.20	6	0.21	
HLM1	HE	149.0	IAML		21:54	12.52	8	0.25	

TABLE 3

GEOGRAPHIC COORDINATES OF SEISMOGRAPH STATIONS, 2013

Code	Name	Lat	Lon	E (km)	N (km)	Ht (m)	Comp
ABA1	BACONSTHORPE	52.8884	1.1453	611.58	337.00	74	1R
AEU	EAST ANGLIA	52.6202	1.2347	618.93	307.45	28	3SMLGmR
APAE	PACKWAY	52.3006	1.4782	637.12	272.68	58	1R
AWH	WHINBURGH	52.6297	0.9507	599.67	307.68	64	1R
AWI	WITTON	52.8319	1.4471	632.17	331.65	46	1R
BATH	BATH	51.4429	-2.3292	377.22	171.60	131	BBR
BBH	BRUNTSHEIL	55.1333	-2.9299	340.72	582.50	216	1R
BBO1	BOTHEL	54.7367	-3.2464	319.76	538.69	209	3R
BCC1	CHAPELCROSS	55.0153	-3.2201	321.99	569.66	138	1SMmR
BDL	DOBCROSS HALL	54.8030	-2.9385	339.68	545.76	157	1R
BHH	HOWATS HILL	55.0931	-3.2181	322.27	578.31	216	3R
BIGH	UPPER BIGHOUSE	58.4932	-3.9102	288.75	957.69	70	BBSMR
BTA	TALKIN	54.9057	-2.6844	356.12	557.00	279	3R
BWH	WARDLAW	55.1758	-3.6549	294.62	588.09	269	1R
CCA1	CARNMENELLIS	50.1866	-5.2277	169.62	36.90	210	BBSMR
CLGH	CUSHENDALL	55.0828	-6.1106	137.76	584.21	239	BBR
CWF	CHARNWOOD FST	52.7385	-1.3076	446.74	315.91	203	BBR
DRUM	DRUMTOCHTY	56.9123	-2.4865	370.48	780.23	208	BBSMR
DYA	YADSWORTHY	50.4353	-3.9310	262.88	61.34	292	BBR
EAB	ABERFOYLE	56.1887	-4.3373	254.97	702.02	279	1R
EAU	AUCHINOON	55.8454	-3.4474	309.38	662.30	359	1R
EBH	BLACK HILL	56.2476	-3.5084	306.54	707.13	375	1R
EBL	BROAD LAW	55.7723	-3.0445	334.48	653.71	436	1R
ECK	CAULDKAINE HILL	55.1810	-3.1292	328.10	588.00	351	1R
EDI	EDINBURGH	55.9233	-3.1875	325.80	670.66	125	BBR
EDMD	EDMUNDBYERS	54.8312	-1.9636	402.43	548.48	337	BBSMR
EDU	DUNDEE	56.5477	-3.0110	337.85	739.97	421	1R
ELO	LOGIEALMOND	56.4703	-3.7112	294.59	732.21	523	1R
ELSH	ELHAM	51.1482	1.1345	619.32	143.44	126	BBSMR
ESK	ESKDALEMUIR	55.3165	-3.2052	323.52	603.16	261	BBmR
ESY	STONEYPATH	55.9175	-2.6141	361.62	669.55	337	1R
FOEL	FOEL WYLFA	52.8898	-3.2012	319.27	333.15	449	BBSMR
GAL1	GALLOWAY	54.8664	-4.7114	226.02	555.78	117	BB3LGmR
GCD	CASTLE DOUGLAS	54.8630	-3.9403	275.48	553.76	184	1R
GDLE	GLAISDALE	54.4218	-0.8157	476.94	503.57	228	BBSMR
GMK	MULL OF KINTYRE	55.3458	-5.5934	172.19	611.64	164	1R
GMM	MTNS OF MOURNE	54.2377	-5.9498	142.66	489.67	155	1R
HEX	EXMOOR	51.0664	-3.8026	273.71	131.28	230	1R
HGH	GRAY HILL	51.6379	-2.8057	344.25	193.59	223	1R
HLM1	LONG MYND	52.5184	-2.8807	340.25	291.57	429	BBR
HMNX	HERSTMONCEUX	50.8674	0.3363	564.49	110.15	26	BBR
HTR	TREWERN HILL	52.0785	-3.2679	313.12	243.04	337	1R
HPE	PEMBROKE	51.9372	-4.7746	209.29	230.21	349	1R
HPK	HAVERAH PARK	53.9581	-1.6241	424.66	451.42	233	BBSMR
HSA	SWANSEA	51.7500	-4.1532	251.38	207.94	293	1R
HTL	HARTLAND	50.9943	-4.4849	225.64	124.66	86	BBSMmR
INVG	INVERGELDIE	56.4273	-4.0452	273.96	727.99	279	BBSMR
IOMK	KIRK MICHAEL	54.2605	-4.5662	232.95	488.02	188	BBR
JDC	DAM (CREST)	49.1947	-2.0469			39	SMR
JDG	DAM (GALLERY)	49.1947	-2.0469			7	SMR
JLP	LES PLATONS	49.2486	-2.1039			129	1R
JQE	QUEENS EAST	49.2000	-2.0383			58	1R
JRS	MAISON ST LOUIS	49.1922	-2.0922			56	3LGmR
JSA	ST AUBINS	49.1878	-2.1717			39	BBR
JVM	VALLE DE LA MARE	49.2169	-2.2067			64	1R
KAC	ACHNASHELLACH	57.4989	-5.2988	202.36	850.19	206	1R
KBI1	BIRLEY GRANGE	53.2543	-1.5279	431.49	373.17	272	1R
KESW	KESWICK	54.5886	-3.1048	328.70	522.05	282	BBSMR
KEY2	KEYWORTH	52.8790	-1.0770	462.13	331.73	76	SMR

TABLE 3

GEOGRAPHIC COORDINATES OF SEISMOGRAPH STATIONS, 2013

Code	Name	Lat	Lon	E (km)	N (km)	Ht (m)	Comp
KPL	PLOCKTON	57.3391	-5.6527	180.21	833.50	13	BBSMLGR
KSB	SHIEL BRIDGE	57.2099	-5.4214	193.40	818.40	417	1R
KSY	SYSTON	52.9642	-0.5872	494.88	341.73	121	1R
KTG1	TILBROOK GRNGE	52.3264	-0.4019	508.90	271.06	83	1R
KUF	UFFORD	52.6170	-0.3907	508.94	303.39	38	1R
LAW	LOCH AWE	56.2601	-5.3990	189.58	712.71	137	BBSMR
LBWR	LADYBOWER	53.4016	-1.7248	418.40	389.45	353	BBSMR
LHO	HOLMEFIRTH	53.5453	-1.8548	409.62	405.44	462	1R
LMK	MARKET RASEN	53.4573	-0.3274	511.15	396.92	133	BBSMR
LRW	LERWICK	60.1360	-1.1779	445.66	1139.27	98	BBSMR
MCD	COLEBURN DISTIL	57.5828	-3.2541	325.02	855.42	293	3SMLGmR
MCH1	MICHAELCHURCH	51.9974	-2.9983	331.47	233.74	219	BBSMR
MDO	DOCHFOUR	57.4409	-4.3633	258.17	841.39	415	1R
MLA1	LATHERON	58.3055	-3.3627	320.15	935.98	188	1R
MME1	MEIKLE CAIRN	57.3149	-2.9647	341.90	825.32	475	1R
MONM	MONMOUTH	51.8396	-2.8054	344.61	215.98	145	BBR
MVH1	ACHVAICH	57.9250	-4.1825	270.75	894.90	185	1R
OLDB	OLDBURY	51.6609	-2.5514	361.95	195.94	6	BBSMR
PCO1	CORRIE	55.9880	-4.1002	269.00	679.21	267	1R
PGB1	GLENIFFERBRAES	55.8115	-4.4837	244.38	660.37	199	BBR
REB	EISG-BRACHAIDH	58.1194	-5.2802	206.82	919.16	100	1R
RRH	RHENIGIDALE	57.9197	-6.6881	122.43	901.86	103	1R
RRR	RUBHA REIDH	57.8577	-5.8067	174.19	891.68	61	3SMLGmR
RSBS	ROSEBUSH	51.9530	-4.7448	211.48	231.84	278	BBR
RSC	SCOURIE	58.3485	-5.1683	214.61	944.33	60	1R
RTO	TOLSTA	58.3778	-6.2092	153.95	950.93	74	1R
SAN1	SANDWICK	60.0179	-1.2392	442.41	1126.08	150	1R
SKP1	KOPHILL	51.7218	-0.8096	482.22	203.29	212	1R
SMD	MENDIPS	51.3083	-2.7170	350.03	156.88	310	1R
SOFL	SORNFELLI	62.0689	-6.9658			721	BBR
SSW	STOW-ON-WOLD	51.9667	-1.8499	410.31	229.86	291	1R
STNC	STOKE	53.0913	-2.2062	354.95	386.19	234	BBR
STRD	STROUD	51.7763	-2.1643	388.77	208.64	200	BBR
SWN1	SWINDON	51.5137	-1.8007	413.83	179.49	192	BB3SMLGmR
WACR	WEST ACRE	52.7247	0.6267	577.48	317.35	66	BBSMR
WAL1	WALLS	60.2564	-1.6173	421.18	1152.46	167	1R
WIM	ISLE OF MAN (South)	54.1475	-4.6738	225.39	475.73	386	1R
WLF1	LLYNFAES	53.2894	-4.3966	240.27	379.65	58	BBSMR
WME	MYNDD EILIAN	53.3969	-4.3032	246.88	391.40	129	1R
WPM1	PENMAENMAWR	53.2581	-3.9048	272.95	375.18	353	1R
WPS	CAMAES, ANGLESEY	53.4004	-4.4986	233.98	392.19	16	BBSMR
XAL	ALLENDALE	54.8617	-2.2147	386.22	551.91	458	1R
XSO	SOURHOPE	55.4924	-2.2510	384.14	622.10	516	1R
YEL1	YELL	60.5509	-1.0830	450.29	1185.55	203	1R
YLL	LLANBERIS	53.1402	-4.1704	254.84	362.57	159	1R
YRC	RHOSCOLYN	53.2508	-4.5753	228.21	375.77	22	1R
YRE	YR EIFL	52.9810	-4.4254	237.19	345.42	197	1R

Component Codes:

- 1 Single vertical seismometer
- 3 Orthogonal set of 3 seismometers
- M Low-frequency microphone
- LG Single low-gain vertical seismometer
- SM Strong motion seismometers
- BB Broadband Instrument
- R Station coordinates registered with the International Seismological Centre (ISC), England and the National Earthquake Information Centre (NEIC), USA

TABLE 4**Depth / crustal velocity models used in earthquake locations**

Structural area	Depth to top of layer (km)	P-wave velocity (km/sec)	Vp/Vs
North Sea	0.00	6.20	1.73
	12.00	6.50	
	23.00	7.10	
	31.00	8.05	
Lownet and general UK	0.00	4.00	1.73
	2.52	5.90	
	7.55	6.45	
	18.87	7.00	
	34.15	8.00	
Borders	0.00	4.10	1.71
	3.00	5.60	
	4.10	6.15	
	17.00	6.60	
	30.00	8.00	
North Wales (Lleyn)	0.00	5.40	1.68
	2.00	6.05	
	13.00	6.50	
	25.00	6.80	
	34.00	8.00	
Mid Wales	0.00	5.40	1.72
	3.80	6.05	
	15.50	6.65	
	34.30	8.00	
Cornwall	0.00	5.50	1.77
	0.30	5.76	
	15.00	6.90	
	30.00	8.00	

Appendix 1 Key to Bulletin Encoding

YearMoDy	Year, month and day of event.
HrMn Secs	Time of occurrence of event in hours, mins and secs, (UTC).
Lat	Latitude of the event, positive latitude indicates North.
Lon	Longitude of the event, positive longitude indicates East.
kmE	UK National Grid Reference in kilometres east of grid origin.
kmN	UK National Grid Reference in kilometres north of grid origin.
Dep	Depth of the hypocentre in kilometres.
Mag	Richter local magnitude of the event.
Locality	A geographical indication of the epicentral area, usually the nearest town followed by the region. A key to the abbreviations used in the locality column are given below.
Int	Maximum EMS intensity. 2, 3, 4, 5 etc describes the maximum EMS intensity produced by the event.
Comments	Additional comments about the event eg: C/F, see below under comments abbreviations.

The following abbreviations are extracted from the output of the location program HYPO71 (Lee and Lahr,1975)

No	Total number of P and S readings used in the event location.
Gap	Largest azimuthal separation in degrees between stations.
RMS	Root Mean Square of the travel time residuals in seconds.
ERH	Standard error of the epicentre in kilometres. When this column is blank, the error is large and indeterminate.
ERZ	Standard error of the focal depth in kilometres. When this column is blank, the error is large and indeterminate.

Locality and Comments abbreviations

C/F	Coalfield Type
Leics	Leicestershire
D & G	Dumfries and Galloway
Notts	Nottinghamshire
Bucks	Buckinghamshire
Co	County
I.O.W	Isle of Wight
...	and felt elsewhere
N,S,E,W	North, South, East, West

Appendix 2 Key to Phase Data Encoding

Time	Time of occurrence of event in hours, mins and secs, (UTC).
Lat	Latitude of the event, N indicates North.
Lon	Longitude of the event, W indicates West, E indicates East.
Depth	Depth of the hypocentre in kilometres.
Grid Ref	UK National Grid Reference in kilometres east (kmE) and kilometres north (kmN) of grid origin.
RMS	Root Mean Square of the travel time residuals in seconds.
Velocity Model	Velocity model used in location.
Magnitude	Richter local magnitude of the event.
Locality	A geographical indication of the epicentral area, usually the nearest town followed by the region.
Intensity	Maximum EMS intensity. 2+ indicates felt, no macroseismic details. 3+, 4+ etc indicates felt at 3 or 4, but no survey carried out. 3, 4, 5 etc describes the maximum EMS intensity produced by the event.
Comments	Additional comments about the event eg: C/F see list of comments abbreviations below.
STAT	Station name
CO	Z=vertical N=north south E=east west
DIST	Distance from earthquake to station (km)
PHAS	Phase identifier; the first letter characterizes onset E=emergent I=impulsive, the second indicates the phase eg P, S, PG and PN. AML
WT	Hypo weighting factor to arrival. 0 or blank=full weighting to 4=zero weighting (ignore). 9=use P S interval only for this line.
P	Polarity C=Compression/up D=Dilatation/down
HrMn	Hour, Minute of event
SECS	Seconds of event
AMPL	Amplitude centre to peak in nanometres (nm)
PERI	Period in seconds
RES	Station residual

Appendix 3 The European Macroseismic Scale (EMS 98)

1 - **Not felt**

Not felt, even under the most favourable circumstances.

2 - **Scarcely felt**

Vibration is felt only by individual people at rest in houses, especially on upper floors of buildings.

3 - **Weak**

The vibration is weak and is felt indoors by a few people. People at rest feel a swaying or light trembling.

4 - **Largely observed**

The earthquake is felt indoors by many people, outdoors by very few. A few people are awakened. The level of vibration is not frightening. Windows, doors and dishes rattle. Hanging objects swing.

5 - **Strong**

The earthquake is felt indoors by most, outdoors by few. Many sleeping people awake. A few run outdoors. Buildings tremble throughout. Hanging objects swing considerably. China and glasses clatter together. The vibration is strong. Top heavy objects topple over. Doors and windows swing open or shut.

6 - **Slightly damaging**

Felt by most indoors and by many outdoors. Many people in buildings are frightened and run outdoors. Small objects fall. Slight damage to many ordinary buildings eg; fine cracks in plaster and small pieces of plaster fall.

7 - **Damaging**

Most people are frightened and run outdoors. Furniture is shifted and objects fall from shelves in large numbers. Many ordinary buildings suffer moderate damage: small cracks in walls; partial collapse of chimneys.

8 - **Heavily damaging**

Furniture may be overturned. Many ordinary buildings suffer damage: chimneys fall; large cracks appear in walls and a few buildings may partially collapse.

9 - **Destructive**

Monuments and columns fall or are twisted. Many ordinary buildings partially collapse and a few collapse completely.

10 - **Very destructive**

Many ordinary buildings collapse.

11 - **Devastating**

Most ordinary buildings collapse.

12 - **Completely devastating**

Practically all structures above and below ground are heavily damaged or destroyed.

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A complete description of the EMS-98 scale is given in: Grunthal, G., (Ed) 1998. European Macroseismic scale 1998. Cahiers du Centre European de Geodynamique et de Seismologie. Vol 15.